STATES OF AMERICA
Inc., N.Y. Form 316

THE
ENTARY SCHOOL JOURNAL

Edited by

NEWTON EDWARDS

with the co-operation of

THE DEPARTMENT OF EDUCATION OF
THE UNIVERSITY OF CHICAGO

and published in conjunction with

THE SCHOOL REVIEW AND THE
SUPPLEMENTARY EDUCATIONAL MONOGRAPHS

THE ELEMENTARY SCHOOL JOURNAL is published monthly from September to June by the University of Chicago. The subscription price is $2.50 a year; the price of single copies is 30 cents. Orders for service of less than a half-year will be charged at the single-copy rate. Postage is prepaid by the publishers on all orders from the United States and possessions, Argentina, Balearic Islands, Bolivia, Brazil, Canary Islands, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Paraguay, Peru, Republic of Panama, Spain, Spanish possessions on the north coast of Africa, Uruguay, and Venezuela. Postage is charged extra for other countries as follows: Canada, Newfoundland, and Labrador, 20 cents on annual subscriptions (total $2.70), 2 cents on single copies (total 32 cents); all other foreign countries, 60 cents on annual subscriptions (total $3.10), 6 cents on single copies (total 36 cents).

Patrons are requested to make all remittances payable to the Department of Education, University of Chicago, in postal or express money orders or bank drafts.

Volume XXXVII JUNE 1937 Number 10

$2.50 a year - PUBLISHED MONTHLY EXCEPT JULY AND AUGUST - 30 cents a copy

Entered as second-class matter August 30, 1920, at the post-office at Chicago, Illinois, under the Act of March 3, 1879.

Acceptance for mailing at the special rate of postage provided for in section 1103, Act of October 3, 1917, authorized March 31, 1919.

Address all communications regarding subscriptions and editorial matters to the Department of Education, University of Chicago, 5835 Kimbark Avenue, Chicago, Illinois.

[PRINTED IN U.S.A.]

THE ELEMENTARY SCHOOL JOURNAL

VOLUME XXXVII OCTOBER 1936 NUMBER 2

Educational News and Editorial Comment

A PROGRAM FOR FEDERAL SUPPORT OF EDUCATION

In a recent volume entitled *Federal Support for Public Education*, Professor Paul R. Mort, of Teachers College, Columbia University, outlines in detail a program for federal participation in the support of education in the states. The program is based on the findings of a series of researches carried out under Professor Mort's supervision during the past two years. The two basic principles which, it is thought, should govern the distribution of federal aid are discussed: (1) the equalization principle and (2) the efficiency principle. In order that centralization of control of education may be avoided, a formula has been worked out for the distribution of federal funds which leaves absolutely no discretion to any administrative official in Washington. On this point the report reads

> If undesirable controls are to be avoided, the exact methods of determining the amount of aid and the conditions under which it is to be granted must be defined in the law, and the measures of need and ability must be defined so specifically that any two competent persons applying them will get the same results. Furthermore, the measures employed must have a high degree of equity and take into consideration all important factors to guard against the need for granting to a central agency the power to make adjustments.

Even if objective measures were to become less effective than the *best* use of discretionary power, there is strong argument in favor of their use. Something in equity may, if necessary, be sacrificed to safeguard local rights.

The following paragraphs indicate the general scope of the plan and the principles upon which it is based.

The method recommended for federal aid based on a $15 foundation program is developed from (1) a consideration of the demands of the equalization and efficiency principles in financing the defensible $60 foundation program; (2) the various methods that have been devised for expanding from a low beginning foundation program toward a defensible foundation program; (3) possible demands for federal aid to state and local governmental functions other than education; and (4) the mathematical relationship between certain types of central aid plans and distribution back to local units of taxes paid in such units to the central government. . . . .

The proposed plan calls for (1) the equalization of the support of a national foundation program of education through general federal aid and (2) assistance in modernizing the rural school plants of the nation by means of special federal aid.

An extremely low national foundation program is proposed as a first step. Expansion toward a higher and more adequate program is proposed, for consummation over a period of years. The rate of expansion is to depend upon the rate of educational improvement in states at the low end of the expenditure scale.

Federal aid for current expenses.—As soon as it proves feasible, the federal government should provide $300,000,000 annually toward the support of public education in the various states and territories. This aid should be distributed with due consideration for the educational need of each state and territory and its relative ability to pay taxes. Educational need should be determined basically in terms of average daily attendance in elementary and secondary schools. To this basic figure should be added corrections for higher costs in high schools, higher costs due to sparsity of population, as reflected in smaller classes, need for transportation or need for board and room, and higher costs of personal service due to higher costs of living in certain types of communities. Ability to *pay taxes should represent ability under as nearly ideal a system of taxation* as can be applied practically

The $300,000,000 annual federal aid should be distributed so as to provide to states a flat grant of $6 per weighted pupil unit, the equalization of a $15 foundation program, and a guaranty of 20 per cent of ultimate aid under a really defensible program. These provisions would be as follows:

1. *A $6 flat grant.* Sixty-four per cent of the $300,000,000, or $190,000,000, should be distributed to the states and territories on the basis of $6 per weighted pupil unit.

2. *A $15 equalization guaranty.* Aid over and above $6 per weighted pupil should be granted to the least able states. The total aid should be sufficient in amount to make possible a foundation program costing $15 per weighted pupil, without using in any state more state and local funds than could be justified by the relative abilities of the respective states to raise state and local tax revenue.

3. *A guaranty of 20 per cent of the ultimate federal aid.* Further aid should be granted any state where the amounts allotted above do not equal 20 per cent of the aid which they would receive if the federal government chose to equalize a foundation program of sufficient extent to be really defensible as a national foundation program.

The amount of aid to be received by any state or territory under the operation of the above plan would vary from $6 per weighted elementary pupil in the three ablest states to $11.84 in the least able state. . . . .

Federal aid for rehousing rural schools.—A special federal-aid program should be enacted for the rehousing of rural schools. This law should carry certain minimum provisions with respect to size of school attendance units under varying conditions, and should place on each state the responsibility of making the necessary surveys for laying out the placement of new schools. When a community agrees to the changes recommended, liberal federal aid should be granted toward the construction of the centralized school or schools.

One of the major purposes of federal aid to education in the states is to equalize more nearly educational opportunity. If this end is to be accomplished, certain essential factors must be taken into consideration. One of these factors is the unequal distribution of the burden of child care and education. Because of differentials in reproduction, the supporting adult population in some states is carrying a burden of young dependents fully twice as great as that carried in other states. By way of illustration, in a number of selected states the number of children of school age (five to seventeen) per thousand adults (twenty to sixty-four) is as follows:[1]

South Carolina	739	California	319
North Carolina	691	Nevada	332
Alabama	628	New York	363
Georgia	617	Washington	383
Mississippi	615	Illinois	389
Utah	612	Maryland and D.C.	392

---

[1] The data on population and income which appear in this item are taken from unpublished studies made by the editor.

Obviously, the situation faced by the supporting adult group in South Carolina in caring for its young dependents is very different from that faced by the supporting adult group in California. This imbalance in the distribution of the child population among supporting adult groups conditions fundamentally the ability of the states to provide adequate educational facilities. The situation is aggravated all the more by a corresponding imbalance in the distribution of the national income because, quite without exception, in those areas where the ratio of children to adults is the highest, the level of living is the lowest and economic resources are the most limited. Take South Carolina and California as illustrations. For each 1,000 adults in South Carolina there are 739 children of school age; in California there are only 319 children for each 1,000 adults. South Carolina has the responsibility of caring for and educating 1.86 per cent of the nation's children of school age, and she must do so on 0.50 per cent of the nation's income. California has 3.61 per cent of the nation's children and receives 6.56 per cent of the total national income. In South Carolina the income per child of school age is $767; in California it is $5,264. The conclusion is inescapable that many of the states are unable to support schools at all comparable with those maintained in other states. They are unable to provide adequate schools because they are carrying a burden of child care and education out of all proportion to that borne by other states and because their economic resources are extremely limited. Obviously, any program of federal aid must be judged in large part on the basis of its effectiveness in equalizing the burden of education. An examination of the practical operation of Professor Mort's proposed plan raises grave doubt that it goes far enough by way of equalizing educational opportunity.

The initial step in the proposed program calls for an annual grant by the federal government for the aid of education in the states, the amount granted to each state to be determined on the basis of the formula previously quoted. In order to get a clearer idea of the practical operation of the formula as a means of more nearly equalizing the burden of child care and education in the states, we made certain calculations which are presented in the accompanying table. Table I shows for each major region and for each state the ratio of children

TABLE I

DATA SHOWING RELATION BETWEEN BURDEN OF CHILD CARE IN THE STATES AND AMOUNT OF FEDERAL AID ASSIGNED BY MORT'S PLAN

Region and State	Number of Children per 1,000 Adults	Percentage of Nation's Children	Percentage of National Income	Income per Child of School Age	Amount per Child Assigned by Mort's Plan
Southeast	603	24.43	10.01	$1,186	$9.51
Virginia	583	2.27	1.14	1,457	9.77
North Carolina	691	3.26	1.09	965	10.15
South Carolina	739	1.86	0.50	767	9.60
Georgia	617	2.83	1.09	1,117	9.31
Florida	461	1.20	0.86	2,077	9.68
Kentucky	569	2.39	1.13	1,377	8.69
Tennessee	558	2.38	0.98	1,197	9.67
Alabama	628	2.59	0.95	1,067	8.93
Mississippi	615	1.94	0.63	936	11.04
Arkansas	602	1.77	0.63	1,027	9.08
Louisiana	551	1.92	1.00	1,507	8.62
Southwest	537	8.13	5.22	1,857	11.27
Oklahoma	562	2.20	1.31	1,719	10.88
Texas	524	5.16	3.34	1,876	11.53
New Mexico	613	0.40	0.22	1,571	11.00
Arizona	497	0.37	0.35	2,721	10.19
Northeast	420	29.65	42.93	4,191	7.26
Maine	455	0.62	0.56	2,625	9.48
New Hampshire	421	0.35	0.33	2,774	7.61
Vermont	449	0.28	0.25	2,604	9.10
Massachusetts	403	3.17	4.51	4,125	7.59
Rhode Island	432	0.54	0.66	3,543	6.47
Connecticut	438	1.28	1.76	3,987	7.40
New York	363	8.85	18.61	6,088	5.84
New Jersey	414	3.12	4.37	4,056	6.87
Delaware	423	0.18	0.34	5,433	5.40
Pennsylvania	480	8.08	8.56	3,066	8.12
Maryland and District of Columbia	392	1.55	2.07	3,858	7.17
West Virginia	606	1.65	0.91	1,597	9.99
Middle States	423	26.05	28.38	3,153	9.70
Ohio	418	5.07	5.74	3,280	9.76
Indiana	430	2.48	2.17	2,528	11.44
Illinois	389	5.61	8.17	4,219	8.13
Michigan	433	3.79	4.53	3,466	9.32
Wisconsin	458	2.36	2.18	2,681	8.99
Minnesota	463	2.08	1.71	2,373	10.61
Iowa	451	1.95	1.31	1,950	12.03
Missouri	412	2.72	2.56	2,725	10.00
Northwest	496	6.25	4.59	2,126	13.33
North Dakota	598	0.65	0.31	1,407	14.28
South Dakota	541	0.62	0.32	1,484	13.52
Nebraska	476	1.13	0.78	2,005	13.10
Kansas	461	1.51	1.17	2,242	13.89
Montana	470	0.45	0.41	2,660	13.03
Idaho	548	0.40	0.30	2,130	13.33
Wyoming	451	0.18	0.19	3,011	14.46
Colorado	451	0.83	0.78	2,727	11.95
Utah	612	0.49	0.33	1,972	12.80

TABLE I—*Continued*

Region and State	Number of Children per 1,000 Adults	Percentage of Nation's Children	Percentage of National Income	Income per Child of School Age	Amount per Child Assigned by Mort's Plan
Far West	337	5.48	8.87	$4,688	$10.13
Nevada	332	0.06	0.10	4,735	8.10
Washington	383	1.13	1.43	3,655	11.60
Oregon	376	0.68	0.78	3,318	11.00
California	319	3.61	6.56	5,204	9.35

of school age to the supporting adult population, the percentage of the nation's children of school age found there, the percentage of the nation's income received, the income per child of school age, and the amount per child of school age that it would receive under the proposed plan of federal aid. The table reveals that the plan would not result in a generous allotment of federal funds to those states or regions in which the supporting adult population is carrying the heaviest burden of young dependents, in which the percentage of the nation's children to be educated far exceeds the percentage of the nation's income received, and in which income per child of school age is extremely low. In fact, in numerous instances exactly the opposite results would be achieved. Compare, for example, the Southeast and the Far West. In the Southeast, for each 1,000 adults in the supporting adult group there are 603 children of school age; in the Far West there are 337 children of school age for each 1,000 adults. The Southeast has 24 per cent of the nation's children of school age; the Far West, 5 per cent. The Southeast receives 10 per cent of the national income; the Far West, 8.87 per cent. Income per child of school age in the Southeast is $1,186; in the Far West, $4,688. And under the proposed plan the amount allotted per child of school age is $9.51 for the Southeast; for the Far West, $10.13. The contrasts are equally striking, if not more so, when individual states are compared. In Mississippi the ratio of children to adults is 615; in Washington, 383. Mississippi has 1.94 per cent of the nation's children of school age; Washington has 1.13 per cent. Mississippi receives 0.63 per cent of the total national income; Washington receives 1.43 per cent. Income per child in Mississippi is $936;

in Washington it is $3,655. For each child of school age the proposed plan would allocate $11.04 to Mississippi and $11.60 to Washington.

There is another body of evidence which bears on the problem. In connection with the investigation directed by Professor Mort, Professor Mabel Newcomer, an experienced tax economist, has worked out what she considers a model tax plan, and she has applied this plan to the tax resources of the various states. Using her data as a basis, one can compute the percentage of the tax resources of each state which would be required to provide for each child of school age in the state an amount equal to the amount spent per child of school age in the nation as a whole in 1930. In 1930 we spent for the education of the nation's children an amount equal to $58 per child of school age. In eight states it would have required more than 100 per cent of the taxes which could have been raised under the Newcomer model tax plan, to provide for each child of school age an amount equal to the national average expenditure. If South Carolina had spent $58, the national average, for the education of each child of school age, the state would have found it necessary to devote to education 191 per cent of its total tax resources. Similarly, Mississippi and Alabama would have had to spend 178 per cent and 163 per cent, respectively, of their tax resources. Obviously, there are a number of states which simply do not have the economic resources, try as hard as they may, to support a program of education at all comparable with that provided by other states. Whether it is sound policy to stimulate these states to spend a larger part of their resources for the support of education is indeed questionable. Liberal federal support of education in those states that need it most would seem to be the sounder policy.

We have long taken pride, and justly so, in our democratic school system. We have extended educational opportunity to our youth more generously than any other nation in the world. It is true, nevertheless, that we have suffered inequalities of educational opportunity to develop which threaten the whole fabric of our democratic institutions. Education, properly organized, contributes to equality of opportunity. It is equally true that education may become the means of creating class, racial, and regional distinctions which may be of serious import for the future. If we are to put into operation a program of federal aid, certain it is that that program should be heavily weighted in favor of those areas where the birth-rate is the highest, where the burden of child care is the greatest, where the level of living is the lowest, where the home has least to contribute to cultural and intellectual growth, and where economic resources are the most restricted. The plan here under consideration does not appear to us to accomplish this purpose.

THE EDUCATIONAL STATUS OF THE POPULATION OF CHICAGO

The Department of Public Relations of the University of Chicago has recently announced some of the major findings of a comprehensive analysis of the educational status of the people of Chicago. The investigation was directed by Richard O. Lang for the Department of Sociology. It is said to be the first accurate investigation that has yet been made of the educational status of any large population group in this country.

Mr. Lang finds that 60 per cent of Chicago's adult population has had no formal schooling beyond the eighth grade. Twenty-six and one-half per cent of the city's adults have attended high school three or more years, and 8.7 per cent have had at least one year of college work.

For the entire population of Chicago eighteen years old or above, the average grade completed in school is 8.1. The average figure for men is 8.05; for women, 8.15. Of this age group, 4.7 per cent have had no formal schooling, 6.8 per cent dropped out of school by the end of the fourth grade, 49.1 per cent did not continue their formal schooling beyond the eighth grade, 12 per cent dropped out of school after the ninth or tenth grade, 17.8 per cent left school after the eleventh or twelfth grade, and 8.7 per cent have had at least one year of college work.

The figures show some difference in the educational status of men and women. A higher percentage of women have attended high school, but a larger proportion of men have attended college. Of all the women eighteen years of age or older, 32.1 per cent have completed from one to four years of high school, as against 27.6 per cent of the men. Ten per cent of the men have had a year or more of college, as compared with 7.3 per cent of the women.

Native whites of native parentage have a somewhat higher educational status than native whites of foreign parentage. The average grade completed by native whites of native parentage is 9.3 as compared with the city-wide average of 8.1. Fifty-five per cent of all those in Chicago who have had one or more years of college were native whites of native parents. The average grade for the second-generation group, native whites of foreign or mixed parentage, was 8.42. The same figure for negroes was 7.5; for foreign born, 6.44. Only 13.8 per cent of the foreign-born have had more than an elementary-school education.

The evidence indicates that the concentration of the lowest educational status falls within the areas of poor housing near the heavy industries and the interstitial areas surrounding the central business district. Areas of low educational status are also areas of high delinquency, crime, and dependency rates. In general, there is a higher educational status among native whites and in areas where the proportion of women to men is high, where the proportion of older people is high, where mobility of families is high, and where families are small in size.

WHAT IS AMERICA DOING TO ITS RURAL CHILDREN?

In the September issue of the *Elementary School Journal,* we commented editorially on the challenge of the rural schools. We attempted, at some length, to show that inequalities of educational opportunity in the United States spring, in the main, from the imbalance in the distribution of the child population and from disparities in income. We are now able to present some very significant evidence which shows conclusively some of the consequences of the country's failure to provide adequate educational facilities for rural youth.

In a monograph entitled *The Child of the Texas One-Teacher School,* Annie Webb Blanton, professor of educational administration at the University of Texas, reports the results of the most intensive investigation of pupils in one-room schools that has yet been made. The study shows that pupils in one-room schools are markedly inferior to urban pupils in native ability, insofar as that ability is revealed by mental tests; that their achievement in school subjects is decidedly lower; and that their economic-social status is below that of city children.

Professor Blanton summarizes her findings as follows:

> The investigations made in this study show that, of the rural and the urban pupils studied, the rural pupils are *definitely inferior to the urban pupils in* ability, in school achievement, and in socio-economic and physical status.
>
> According to the Binet-Simon intelligence tests, the median intelligence quotient of the rural pupils is 93.1 and of the urban pupils 110.5, these figures showing a median inferiority of the rural pupils of 17.4 per cent. According to the group intelligence tests, the median intelligence quotient of the rural group is 90.7 and of the urban group, 111.9, these figures indicating a median inferiority of the rural pupils of 21.2 per cent. The median intelligence quotient of the rural pupils is, approximately, on the two tests, 9 per cent below normal, while that of the urban pupils is, approximately, 10 per cent above normal.
>
> The rural pupils, on the tests in the various branches of study pursued in the elementary school, also show a definite inferiority to the school achievements of the urban children included in this study.
>
> In silent reading, the median reading quotient of the rural pupils is 85, and that of the urban pupils, 98.4; these figures show a median inferiority of the rural pupils of 13.4 per cent. In oral reading 84.4 per cent of the rural pupils were rated as *poor in expression, while only 37.4 per cent of the urban pupils* were so rated; these figures indicate an inferiority of the rural pupils of 47 per cent in expression in oral reading.
>
> In handwriting, the median writing quotient of the rural pupils as to quality is 80 and as to speed is 96.9; the median writing quotient of the urban pupils as to quality is 102.9 and as to speed is 107.7. These figures show a median inferiority of the rural pupils of 22.9 per cent in quality and 10.8 per cent as to speed; an average *inferiority* in writing of 16.9 per cent.
>
> In spelling, the median spelling quotient of the rural pupils is 94.7 and of the urban pupils 105; these figures indicate a median inferiority of the rural pupils in spelling of 10.3 per cent.
>
> In arithmetic, it was not practicable to reduce the scores to percentages. The rural pupils showed an average of 2.3 problems in the four subjects solved correctly, as compared with the urban average of 4.3 problems in the four subjects solved correctly.
>
> For purposes of final comparison in language, the figures in correct usage, grammar, and letter-writing will be used. *The median language quotient in* correct usage of the rural pupils was 100, and of the urban pupils 108.1; this shows a median inferiority of the rural pupils of 8.1 per cent. In grammar, the median grammar quotient of the rural pupils was 103.7; of the urban pupils, 160, these figures show a median inferiority of the rural pupils of 56.3 per cent. In letter-writing, the median letter-writing quotient of the rural pupils was

62.7; of the urban pupils, 93.3; these figures indicate a median inferiority of the rural pupils of 30.6 per cent.

In geography, the median geography quotient of the rural pupils is 59.6; of the urban pupils, 106.6; these figures show a median inferiority of the rural pupils of 47 per cent.

In American history, the median history quotient of the rural pupils is 110.3 and of the urban pupils 114. Here the per cent of inferiority is only 3.7 per cent, the least in any of the branches of study in which a quotient could be calculated. . . . .

It is interesting here to note that the average median inferiority of the rural pupils in the various branches of study of the elementary school does not differ greatly from their average inferiority in ability as measured by the intelligence tests

In comparing the totals as to median physical status of the rural and the urban pupils, a very slight inferiority of rural pupils may be noted. The median rating in physical status of the rural pupils is 73.7, and of the urban pupils, 74.5; these figures give a median inferiority of the rural pupils of only eight-tenths of one per cent; the two groups may, therefore, be regarded as approximately equal in physical status, as measured by the physical tests adopted for this study.

The ratings of the two groups by the Sims Score Card in Socio-economic Status shows a median rating of 5 for the rural pupils and of 7 for the urban group. This rating places the rural pupils two strata lower in socio-economic standing than the urban pupils.

The most positive evidence in this study of a cause of the inferiority of the rural pupils to the urban pupils included in this study, is the inferiority in ability of the rural pupils and the shorter school term of approximately one month. Other causes that appear to have some influence are a slight inferiority in training of the rural teachers, poor equipment and insanitary conditions in the rural schools, and a lower socio-economic status of the rural pupils

It is the opinion of the writer that there is a positive relation between the inferiority in ability of the rural pupils and their socio-economic status She holds that the superior social and economic advantages of urban life have, on the whole, led to attracting to the cities a considerable proportion of the most capable young people upon the farms, the natural processes of selection have left in the rural districts a larger proportion of those inferior in ability to populate the rural districts. It is not the province of this study to suggest the remedy for this situation But the situation is one to attract the attention of the thinking, patriotic citizens of the state.

We should like to call attention to some aspects of the educational situation in Texas to which Professor Blanton did not refer because they were outside the scope of her investigation. From a study which we have made it appears that the rural areas of Texas cannot, for a long time to come, if ever, be expected to provide educational opportunities at all comparable with those provided in urban communities. This conclusion is based on two fundamental considerations: (1) the imbalance in the distribution of children between urban and rural communities and (2) disparities in income between rural and urban areas. In 1930, for each 1,000 adults of twenty to sixty-four years of age in the farm population of Texas, there were 495 children of elementary-school age (five to thirteen); in urban communities the number of children of elementary-school age for each 1,000 adults was 278; and in cities of 100,000 or more the number of children was 255. The farm population of Texas is carrying a burden of child care far greater than that carried in urban communities and nearly twice as great as that carried in the larger cities. And they must educate this excessive number of children on an income much less than that received in urban communities. In 1930 the income per child of school age (five to seventeen) in the farm population was $899; in the non-farm population it was $2,764. In the same year 2.45 per cent of the nation's children of school age were living on Texas farms, but Texas farmers received only 0.76 per cent of the nation's income. The non-farm children of Texas comprised 2.70 per cent of the nation's children of school age; the income of the non-farm population of Texas was 2.58 per cent of the total national income. We submit that these facts taken in connection with Blanton's study constitute a challenge to the educational statesmanship of Texas. It is here further suggested that the situation in Texas is paralleled in every other state in the nation.

UNREASONABLE RESTRICTIONS ON TEACHERS' ACTIVITIES

A recent bulletin of the National Education Association is entitled *Teachers' Contracts: With Special Reference to Adverse Conditions of Employment.* Contracts from practically all the states were analyzed for the purpose of discovering to what extent, if any, school boards impose unreasonable restrictions on the conduct of teachers either in school or outside the classroom. The evidence presented indicates that not a few school boards impose on teachers restrictions that are unreasonable—so unreasonable, in fact, that any group of high-school pupils would be unlikely to submit to them.

The following paragraphs are quoted from the bulletin.

In 67 per cent of the 400 teachers' contracts examined in this study a statement was included to the effect that teachers agree to abide by rules and regulations adopted by the school board. In other words, the teacher is contracted to obey whatever regulations the local school board sees fit to enforce in addition to the stipulations actually written in the contract. The most objectionable restrictions a teacher must endure are in the unwritten laws of the community, but so far as the teacher is concerned these, too, have the force of contract.

Most of the restrictions placed upon teachers by the school board are not specifically written into the contract, but they have for the teacher contractual strength since violation may mean dismissal. For example, it is written in one contract:

"You are subject to dismissal upon thirty days' notice or at any time for wilful violation of any rule of the board, or for misconduct or incompetency. All decisions of the board shall be final and not subject to review (Colorado)."

Since school-board rules were not collected in this study, letters from teachers and findings of other investigators will be depended upon for evidence as to the restrictions placed on school teachers by board rules . . . .

Many school boards, especially in the small towns, restrict the recreational and social life of their teachers. In the larger cities there are few restrictions put upon teachers' activities outside of school, but in certain districts card-playing, dancing, smoking, and any social intercourse outside of church affairs are taboo. Smoking is forbidden Tennessee teachers by state law. The following is given as an example of an extremely restrictive local contract signed by certain North Carolina teachers:

"I promise to take a vital interest in all phases of Sunday School work, donating of my time, service, and money without stint, for the benefit and uplift of the community.

"I promise to abstain from all dancing, immodest dressing, and any other conduct unbecoming a teacher and a lady

"I promise not to go out with any young men except insofar as it may be necessary to stimulate Sunday School work.

"I promise not to fall in love, to become engaged, or secretly married . . ."

Many other schools have regulations which are very nearly as restrictive. Ewing tells of a male teacher in a Missouri school district who was asked to sign a resignation with his contract, the resignation becoming effective, and all salary due forfeited, if at any time or at any place during the period of the contract he should smoke a cigarette, pipe, or cigar. An Alabama school board forbids teachers to "have company or go automobile riding" on school nights An Ohio school board forbids teachers to "go with other teachers" A Mississippi contract reads:

"It is further understood and agreed by the parties hereto that no teacher will play society to the detriment of the school or unnecessarily frolic on school nights or indulge excessively in any sort of socials during school nights, the superintendent to be the judge in these matters and to warn teachers, and should they persist in violating this regulation, it shall be deemed sufficient cause for dismissal." . . . .

Quite a few schools write into contracts restrictions as to place of residence of teachers. For example:

"In addition to the foregoing general terms and conditions of employment you shall and are hereby required as a term and condition of employment to actually reside and maintain a legal residence within the boundaries of the ——— School District during the school term. Residence as that word is herein used shall mean a bona fide fixed habitation within the district (California).". . . .

Weltzin shows that not only the district but also the rooming place of teachers is prescribed in a few contracts. The assignment letter, constituting contract of employment in a certain district, includes the following statement: "It is an expectation on our part that teachers reside in the city at least during the five days of the week that school is in session (New York)."

Not all school boards are as generous in restricting residence to five days of the week. Several teachers' contracts in Mississippi require the teacher to spend week-ends in the district where he is employed "except at such intervals as the superintendent may designate." In some schools, teachers' meetings are called for Saturday requiring the teachers' presence. Regardless of whether school affairs occupy the week-end time of teachers, they are frequently prevented from leaving town. Anderson suggests that teachers are requested or required to stay in town over week-ends so that the community may benefit by their services.

Another restriction has reference to the use of leisure time for financial profit In 5 per cent of the 420 contracts Stevenson examined, outside employment is forbidden. Many of these contracts stipulate that teachers should at no time during the duration of their contract accept outside remunerative work. In some contracts, exceptions are made provided the superintendent or school board approves. Despite this restriction, school salaries are not always paid promptly, and the school board reserves the right to withhold salary for any of several reasons. Nevertheless, financial integrity is demanded of teachers by school boards. In Tennessee and Virginia, second garnishment served against a teacher gives the school board the right to cancel the contract A teacher cannot voluntarily go into bankruptcy.

No doubt many of the rules and regulations adopted by school boards and many of the provisions written into contracts with teachers are so unreasonable and arbitrary as to be illegal and unenforceable in the courts. It is a well-established legal principle that, when a teacher signs a contract, he agrees by implication to obey all reasonable rules and regulations which the board has adopted or which it may adopt, but the teacher is not bound by any board rule that is arbitrary and unreasonable, because the board has no authority to make such a rule. Thus it was said in an Illinois case:

> The board of education is charged with the maintenance of the public schools and the employment of teachers therein. It may enact all reasonable rules for the promotion of the efficiency of the schools under its control. This power does not, however, include the power to adopt any kind of an arbitrary rule for the employment of teachers it chooses to adopt, for a rule can easily be imagined the adoption of which would be unreasonable, contrary to public policy, and on the face of it not calculated to promote the best interests and welfare of the schools. In our opinion courts would have the power, in the interest of the public good, to prohibit the enforcement of such an arbitrary rule.[1]

The case of *Horne* v. *School District of Chester*[2] is an excellent illustration of the limitations which the law imposes on school boards in making rules governing the action of teachers. In that case the school board made it a condition of employment that a teacher board at a designated place. The teacher boarded at the designated place for five weeks and then informed the school board that circumstances had arisen which made her unwilling to live there any longer. She asked to be permitted to board elsewhere but was told that she must board at the home designated if she were to remain in charge of the school. She refused to carry out the board's wishes in the matter and was discharged. In permitting the teacher to recover for breach of contract, the court said:

> The rule of the board as to the teacher's boarding place related to a matter as to which they were given no authority by existing law. . . . . Their refusal, therefore, to permit the plaintiff to continue the school with a different boarding place was unwarranted, and the plaintiff's determination to change her boarding place did not authorize them to terminate her employment as teacher.

In a number of cases, it has been held, too, that a rule providing for the dismissal of a teacher because of marriage is unreasonable and void, although there are other cases which hold such a rule reasonable.

School boards, it should not be overlooked, are agents of government; they have no inherent authority; all the power they possess is derived from the state. They cannot act arbitrarily or capriciously. They are bound by considerations of public policy. When they write into their rules and regulations or into their contracts with teachers provisions which are unreasonable and unnecessary to promote the best interests of the schools, they exceed the scope of their authority and their acts are null and void.

---

[1] *People* v. *City of Chicago*, 278 Ill. 318, 116 N.E 158, L.R.A. 1917E 1069. Although this quotation is from a dissenting opinion, it undoubtedly expresses the correct rule of law.

[2] *Horne* v. *School District of Chester*, 75 N H. 411, 75 Atl. 431.

A GUIDE FOR THE TEACHING OF SAFETY EDUCATION

The State Department of Public Instruction of Pennsylvania has published a bulletin entitled *Safety Education in the Public Schools:* A Manual of Organization and Administration. The purpose of the bulletin is to show in a concrete way how safety education can be integrated with the regular school subjects and with the total activity of the school. Although the bulletin was designed primarily for the teachers of Pennsylvania, it should prove stimulating to teachers elsewhere.

WHO'S WHO IN THIS ISSUE

DOUGLAS E. SCATES, director of school research in the public schools of Cincinnati, Ohio. V. L. BEGGS, superintendent of schools at Elmhurst, Illinois. DOROTHY VAN ALSTYNE, psychologist of the Francis W. Parker School, Chicago, Illinois. LABERTA WEISS HATTWICK, psychologist of the Winnetka Public School Nursery, Winnetka, Illinois. HELEN TOTTEN, guidance director of St. Christopher School, Dobbs Ferry, New York. HARRY L. TATE, principal of Eli Whitney School, Chicago, Illinois. WILLIAM S. GRAY, professor of education at the University of Chicago. R. L. LYMAN, professor of the teaching of English at the University of Chicago. FREDERICK S. BREED, associate professor of education at the University of Chicago. FRANK N. FREEMAN, professor of educational psychology at the University of Chicago. R. M. TRYON, professor of the teaching of history at the University of Chicago. EDITH P. PARKER, assistant professor of the teaching of geography at the University of Chicago.

THE SCHOOL STATISTICIAN IN PUBLICITY WORK

DOUGLAS E. SCATES
Public Schools, Cincinnati, Ohio

During the past few years, when educators have found it appropriate to give a new degree of attention to what the public thinks about public education, new conclusions have been reached about the relative importance of various aspects of administration. For one thing, it appears that educators have devoted too large a proportion of their time to what they are doing and too little time to reporting what they are doing. The public, like any other employer, wants to know what is being done by those who are serving it; if it lacks a vital, stimulating contact with the day-by-day work of its schools, it will lose interest and will fail to continue enthusiastic support.

The topic which I wish to develop briefly in this article deals with the part which the statistician can play in this important service of public relations. I am, of course, fully aware that publicity work is not generally to the liking of the technical group, who are inclined to think of public issues as lying outside the field of their concern. While administrators wrestle with problems of securing reasonable school support, meeting with incessant and unenlightened criticism, and coping with protests voiced by organized opposition to public education, the technical worker is likely to draw the circumscribing limits of his attention a little closer together and, focusing his interests more narrowly on his problems, feel glad that he is working in a protected corner of the school system. It is to such workers particularly that I address this discussion, for I believe that too generally in the past they have not seen the large measure of service which they can render the school system by aiding wholeheartedly in the publicity work which must be done.

I should like to call attention to some of the reasons why I believe statisticians and other research workers should be vitally concerned in the matter of keeping before the public the work and the needs of the public schools.

First, there is a great need for their interest in this work. They can bring to bear on publicity service a perspective and a habit of analysis that other workers do not naturally possess. If educators will but recognize the full significance of their dependence on popular approval, they will see clearly that the maintaining of interest and confidence in the public schools is a task sufficiently large and vital to deserve at least some portion of the thought and energy of *every* worker. At the present time, when the race to secure a larger share of the public's spendable income is becoming more keen among all units in the industrial and commercial world, the public's general institutions are in real need of protection lest the competitive units usurp practically the entire public income and leave far too small a margin for the existence of the general institutions. Definite attempts to move in this direction are already familiar to school workers in cities of any size.

A second important reason for the interest of technicians in publicity work is the protection of the field which is dear to them. Like education in the large, statistics and other technical fields must demonstrate their value or be in danger of being starved. No group of workers can support themselves; they prosper and obtain support for their cherished projects only as they make plain to others the importance of what they are doing. Of course it is true that, as society is organized today, there are bulwarks between the populace and the work of the theoretical specialist; there are various levels of administrators and organizations which successively evaluate and interpret each type of work, reporting to the next more general level, so that the specialist is not immediately dependent on popular opinion. It will be clear, however, that technical work will decline with any general retrenchment in the institution of which it is a part, so that the specialist has a vital interest in seeing that his department contributes its share toward making evident the value of the whole institution. Even in technical fields, therefore, results which the public can comprehend are important for the security both of the immediate department in the institution and of the institution at large. In fact, because of their special ability to render basic service in this direction, statisticians should feel something more than the average amount of responsibility for aiding in the protection of the institution which gives them a working home.

A third element which should be conducive to favorable consideration of publicity work by statisticians is the large challenge which this field offers. To the average statistician, with a typical frame of mind, the production of material for the man of the street probably seems, at first, an entirely unappealing task. It seems too simple, too easy—in fact, rather "high-schoolish." There may appear to be no opportunity to make use of the elaborate techniques which he has mastered; when the work has been done, there may seem to be nothing tangible to show what he has accomplished. Such attitudes as these indicate, of course, such a preoccupation with the details of his task that he does not perceive clearly the larger aspects of service for which his work is adapted. The statistician must bear in mind that statistical techniques had their origin in practical problems, that they have received most of their development from the necessity of meeting practical needs, and that they will find their continued justification through serviceable application to real problems. In doing a certain amount of practical work, the statistician will find a large opportunity to make contributions in his chosen field that are novel and important.

The technician may feel that there is nothing to be gained and everything to be lost in venturing into an area which has not previously been proved to be scholastically profitable and acceptable to the intellectually élite. It may be pointed out, however, that any field in which problems are unsolved affords a large opportunity for persons who are prepared to attack it. The field of publicity work in education is largely unexplored, both as an area of research and as a field of skilful practice. In this respect education lags far behind the techniques known to industry and commerce, and yet educational workers are hopeful of drawing support from the same source If the statistician cannot see the immediate possibility of challenge in developing appropriate insights and procedures for school-publicity work, perhaps he can feel some response to the challenge laid down by the field of business in its unceasing efforts to secure ever-larger profits. A person who undertakes publicity work for education may feel, in no imaginary sense, that he is indirectly matching himself against the skill and techniques of the modern business world as he seeks to preserve for education a just proportion of the income which is available.

A fourth, and final, incentive for entering this field of work is a concept that will probably be the most difficult for the statistician to comprehend, namely, the beneficial effect of such experience on himself and on his work. Those whose sole ambition is to become ever more proficient in the purely theoretical realms of science may perhaps raise a legitimate question about this point if they may be granted the right to devote an entire life to abstract theory. Such devotion is the province of university professors and can be defended for only a small proportion of them; the statistician who finds himself in school work must have an interest in more immediate service. The benefits to him of engaging in the preparation of materials for publicity work should be substantial. New patterns of emphasis will gradually emerge in his thinking and in his work. He will learn what things other people, including the administrative staff, are interested in, what facts they desire, what comparisons they will make with the facts, what points they will be suspicious of, and what conclusions (proper or improper) they will draw. A knowledge of these things affords important guidance for his work.

Some of the services that the statistician should be able to contribute to publicity work will be reviewed briefly. First of all, he is trained to gather facts. He naturally thinks in quantitative terms and will tend to substitute facts where others would use only unsupported statements. He will see ways of gathering indicative data where others would see no possibility of obtaining them. He knows where and how to secure data from other departments, and he knows the form in which he wants them. The statistician will give thought to basic procedures so that the facts which he secures will stand for certain definite things and may be used for comparative purposes. He will select those quantitative aspects of a problem which have most significance. He will so safeguard his work, from beginning to end, that the results will be accurate. Basic data for publicity purposes must be secured with considerable care, for they will be subjected to exacting scrutiny by persons who might profit by disproving them.

Another element in the contribution of the statistician to publicity work is to be found in his ability to analyze. Here his technical training comes into play most strongly. Not the least important are his capacity for looking at a mass of figures without dismay and his willingness to study them until important relationships appear. The non-statistical person is inclined to avoid the most fruitful sources of statistical information because they yield figures much faster than he knows what to do with them. The statistician, however, is trained to make use of multitudes of figures. He is trained to know what relationships to look for and to employ appropriate methods for bringing these out. Furthermore, he will persist in varying his attacks where another person would stop with a single effort. Fundamental analysis of important relationships is as important in the securing of basic facts for publicity work as it is in any kind of research.

In the matter of presentation, the statistician will probably know at least the formal elements; that is, he should be sufficiently conversant with graphic and tabular methods of presentation so that he will be able to offer important advice in connection with these methods. He should be able to suggest when a graph or a table will make material more telling and more readily grasped, and he should be able to aid in preparing the copy for reproduction. He will see that many technical matters in these processes are properly taken care of.

Attention has not been given to some of the most important questions relating to the statistician's work in publicity fields. He may develop a real interest in the work and he may bring a high degree of technical competence to it, but there are large problems of adjustment which normally have to be faced before the research worker can successfully take his part in publicity work. It may be well to refer to some of these matters of general orientation for this field of service. A research worker in approaching any field of application which is new to him must anticipate that there is a great deal to be learned and that too large a confidence in the training which he already has will cause him to overlook opportunities for improving his work. This danger is particularly characteristic of publicity work, for here the elements are strongly psychological and are so closely woven in with the statistical elements that it is not likely the statistician can produce satisfactory material, even the basic material, if he lacks responsiveness to the human factors which should guide his thinking all the way through.

The phase of publicity work that is perhaps of most outstanding importance is the analysis of the market. I refer here not so much to the market for service as to the market for carefully purveyed information. What facts regarding education will appeal to people? What do people want to know and read about? What ideas may be suggested which will predispose people to an understanding appreciation of public education? In what form must these facts and ideas be presented in order that they may make the impression which they deserve? Analyses called for by such questions as these should come first, and they should be continued all through the work of gathering and preparing the factual material. The writers of commercial advertising first study the public and then select those factual aspects of their commodity which will interest the public. Workers in education can scarcely afford to ignore the lessons that business people have learned.

One of the early experiences in publicity work which may prove irritating to the research worker is the necessity of accepting considerable guidance from others. The research worker has developed a large degree of independence in his work; he should make an effort to adapt himself as gracefully as possible to the different conditions which are likely to prevail in publicity work, for this work is usually a joint endeavor. In the analysis of the market many minds must co-operate, bringing to bear various experiences and insights growing out of contacts with different portions of society The research worker should welcome such help; he should realize that an understanding of people is normally his weakest point and that in any case the experience of many persons is desirable When he has adjusted himself thoroughly to his task, he will come to seek the aid of appropriate committees and will expect to participate for many hours in the deliberations of committees and other groups.

The statistician is typically not well adapted to these processes; he does not take to them naturally; he is impatient of the large amount of talk and indecisiveness. He has great confidence in his techniques, and he feels that, if the people would only stop talking and let him go to work, all would be well. The many conferences, the protracted discussion, the indecision—all are attempts to analyze the market for school facts. The statistician must come to recognize that this analysis is of far greater importance than is his technical skill. Without these steps the statistician might not only waste his own energy through producing ineffective material, but, more important still, he might waste crucial opportunities for stimulating appropriate public response. His technical insights are important, but they represent only one set of elements in the complex practical situation to be analyzed.

Another adjustment which the research worker may have to make is in his attitude toward the application of facts. In publicity work some selection is essential. The worker does not tell just anything that he happens to know. In preparing material, he is not primarily writing facts; he is rather employing facts to carry out a purpose. Of course, he cannot be so biased in his selection that he will lay himself open to accusations of not telling the truth, but in his selection of what to present he will be guided primarily by his purpose and by the market for his facts. This matter is mentioned here, not so much as a caution (ordinary common sense will take care of the matter in most cases), but as a corrective to certain extreme attitudes that some idealists may hold. A research worker may, for example, feel that publicity material is simply an assembly of half-truths and that he would be required to sacrifice his integrity if he engaged in it. Some further thought may throw a different light on this point of view.

It should be clear that all purposeful work is selective, research as much so as anything else. Any worker disregards hosts of facts in his regular research because they do not relate to his problem. He always tells partial truths, of necessity, because he cannot know *all* the facts about anything Quantitative science is likely to be less complete in the aspects included in its description than is science which is chiefly non-quantitative Indeed, statistics might be denoted the science of partial truths. Anything that can be put into figures is only part of the truth, and oftentimes it is not so important as those parts which cannot be expressed in figures There is a great multiplicity of aspects to truth, only a person who is a theoretical idealist need concern himself with the thought of telling the *whole* truth, for, as a practical thing, to attempt to do so is a patent absurdity. The important thing is to tell the significant truth—and the significance of any fact is to be judged in the light of its ultimate effect on the service of education to the people.

The matter of selecting facts for a purpose should not, therefore, trouble a person who is accustomed to research work, for he does it all the time. The real question relates not to the selecting but to the purpose, and the worker should consider his purposes carefully. He will not start out to paint any school system as perfect; but neither will he present facts which unnecessarily damage the schools, for he would not then be doing justice to the public. He will seek to present facts which will aid the administration and the teachers in achieving a more serviceable school system and which will aid the public in doing its part to obtain such a system. He will consider facts, not simply from the point of view of truth, but from the point of view of their ultimate effect on developing for the people a school system which is efficient and effective in meeting the people's needs. Over and above the bare mechanics of operating a school system which may be reflected in quantitative facts, he must recognize and tell about the feeling of craftsmanship on the part of the workers, the setting of high standards, and the constant endeavor to realize goals through conscientious daily work. These elements of professional service deserve a place in the facts which are presented to the public; it is more important to include them than it is to include every figure which may be derived.

A third aspect of publicity work which may call for some adjustment on the part of the research worker is the presentation of material on an appropriate level of difficulty. Many a statistician will disdain the popular level of perception and understanding, saying (inwardly at least) that people should know more, that they have no right to be so lazy mentally, that only the intelligent are worth reaching, etc. Such an attitude means that the statistician is as yet unprepared to undertake the important work of making his knowledge render the largest service to people. To do this work well, the technician must not only understand people and their limitations, but he must sympathize with them and desire to help them see what he, by virtue of his superior advantages, is able to see. He is an interpreter; because his ability and opportunity to penetrate behind the surface and gather facts from a wide area allow him to know the truth, his desire should be to make this truth understandable to others. Statisticians and other research workers are too frequently regarded as constituting a closed corporation. They write, not for the consumer, but for themselves. They try to keep caste rather than to render the greatest possible service.

Perhaps one of the difficulties is that research workers fail to appreciate how most people think—or do not think, as one cares to put it. In either case the appreciation is equally important, for it is the mind of the other person, thinking or not, that must be reached if statistical facts are to be of value. The statistician must therefore get a clear picture of the other person's mind. Publicity material must be written, not for the mind of the alert scholar devoting all his energies to reading what is before him, but rather for the relatively inattentive mind as it passes rapidly from one set of headlines to another. People are not ordinarily willing to pause to consider anything that is complex, long, or otherwise difficult to grasp. The gist of the situation must be culled out from the mass of less important material and must be presented as a simple statement. There is probably a simple way of stating anything, at least in symbolic form, if a person is ingenious enough to find that way; and, when the statistician considers the mental set of the average person reading a newspaper, looking at billboards, scanning his mail, or otherwise being bombarded with ideational stimuli to which someone else is trying to make him pay attention, the research worker will recognize that the reader's mind becomes surfeited with the attention pre-empting devices that are cleverly and profusely injected into nearly all verbal material popularly consumed. In a psychological situation that is already overcrowded with appeals, the statistician must find some way of getting his statements read and understood. This necessity presents a challenge.

The field of publicity work, which has been described as an opportunity for research workers, calls for the study of statistics with something of a new purpose It calls for students with the willingness to penetrate the mysteries of statistical technique and to master the rigors of scientific methods, while retaining their interest in the great masses of humanity and maintaining their sympathy for the kind of thinking done by the common person. The problem for these students is *to refine their thought without losing the human point of view.* They need statistics to increase their own insights; they need the language of the street and home to make these insights serviceable. One is reminded of a couplet in Kipling's famous poem "If":

> If you can talk with crowds and keep your virtue,
> Or walk with Kings—nor lose the common touch.

In summary, I believe the field of publicity work in education offers all the elements of complexity, of challenge, and of opportunity that the research worker can desire. I realize that participation in this work as an occasional activity or as a permanent field of service is not an established channel for securing recognition as a scholar. The pattern of leadership within the ranks of statistical workers has been set by those who possess and exhibit powers of abstract analysis and generalization and who have devoted most of their energies to theoretical considerations. This situation is characteristic of academic interests. I believe, however, that there are equally worthy opportunities for persons who are willing to be somewhat more immediately practical and to devote most of their energy to a relatively immediate service—without neglecting opportunities to make analyses of a more general character which grow out of their work when they can thus contribute in a larger way to the progress of their field of endeavor.

REPORTING PUPIL PROGRESS WITHOUT REPORT CARDS

V. L. BEGGS
Public Schools, Elmhurst, Illinois

Report cards have long furnished the most direct line of communication between the home and the school. Frequently they provide the chief basis for the interpretation of the school and its program. A majority of parents, and too many teachers, conclude that the school's most important contribution to the child's education is recorded on the card. Yet the confusion of parents and the scarcely less obvious uncertainty of teachers have long suggested the inadequacy of school marks as a reliable interpreter of pupil progress or adjustment. The vicious by-products of lesson-learning, the "get-by" attitude, the "passing" complex, and unwholesome competition are readily admitted. Many administrators have been experimenting with new media for reporting pupil progress. In the main, these efforts have taken the direction of reducing the range of the point scale from six or seven symbols to two or three. Frequently "satisfactory" or "unsatisfactory" are the only marks to appear on a report card.

A common accompaniment to this abbreviated report of scholastic achievement is the more or less analytical check list of personality traits. Nearly everyone is ready to concede that the school must concern itself with character development and personality adjustments, but few maintain that a check list is the ideal method by which parents may be informed of pupil progress It is too brief, too stereotyped, and too impersonal. For example, a check mark indicating that a pupil's co-operation is "showing improvement" or "needs attention" provides the parent with an inadequate picture of personality development. Frequently, too, such reports reflect no serious analyses of the growing but complex personalities intrusted to the teacher's charge. Many superintendents admit the inadequacy of their reports of pupils' progress but believe that the traditional demand for "marks" and the clerical work involved in preparing a detailed and personal report are insuperable obstacles to *the issuance of scientific* and comprehensive reports.

Seven years ago the administration in the Elmhurst elementary schools decided to test, in a tentative fashion, the validity of these objections. At that time the practice in the system was to issue to pupils in Grades I–VIII, inclusive, a formal report card with a letter rating of six steps. The supervisory staff agreed that, with the exception of the personal conference, the diagnostic letter sent to the home of a pupil who is not making normal progress or adjustment is the most effective single instrument in securing parental enlightenment and co-operation. Consequently, it was agreed that the diagnostic letter should be issued in Grade I and, if successful there, should be extended gradually to include all grades below the junior high school. This extension was made one grade at a time until all grades were included. In this plan of extension no pupil was deprived of a report card if he had been accustomed to receiving one, and acceptance of the procedure was almost unanimous.

Further recognition was given to the traditional intrenchment of report cards by inviting parents to a tea or other gathering in each school. At this time the supervising principal made a detailed presentation of the new plan. Free discussion followed, and parents invariably decided in favor of the new diagnostic letter. The second objection, the time required for the preparation of the letters, was met in part by reducing the frequency of issuance from a monthly to a quarterly basis; in part by staggering the reports to distribute the load; in part by the installation of typewriters; and in part, particularly during recent years, by securing WPA and National Youth Administration workers for stenographic assistance. Clerical work remains, however, the chief problem in the program, but it is by no means insurmountable. Before the depression forced the classroom maximum from thirty-five to forty pupils, there was no appreciable difficulty in getting out the letters, and since that time inexpensive part-time help and relief workers have minimized the problem.

No form letter or formal guide was issued to the teachers. As a guide for their diagnosis and organization of reports, they were supplied with the following list of recognized traits, with pertinent questions to be answered.

A. Personality development
  1. Is he emotionally stable or unstable?
  2. Can he work or play with other children in a harmonious relationship?
  3. Is he a leader or a follower in group activities?
  4. Is he cheerfully and intelligently obedient?
  5. Is he unselfish and considerate in his relation with other children?
  6. Is he enthusiastic toward school activities or is he apathetic?
  7. Is he truthful and honest?
  8. If he is untruthful, are his falsehoods defensive, imaginative, or maliciously deceitful?

B. Methods of study
  1. Is he capable of sustained attention or is he easily distracted?
  2. Is he independent or is he dependent upon the teacher or classmates for help?
  3. Does he require an unusual amount of reteaching or does he retain well?
  4. Can he follow directions accurately?
  5. Is he fluent in oral expression?
  6. Is his work carefully or carelessly done?
  7. In comparison with his classmates, does he work rapidly or slowly?
  8. Does he possess any special abilities or aptitudes?

C. Academic achievements
  1. Is he acquiring a genuine reading adaptation?
  2. Is his reading free from faulty devices, such as lip-movement, diffusion of eye-movement, pointing, memorization, etc.?
  3. Does he read mechanically or with understanding?
  4. Does he do voluntary reading or only assigned lessons?
  5. Is his number work on a par in rate and accuracy with accepted standards? With the remainder of the class?
  6. Are his spelling and writing in keeping with accepted norms?
  7. Does he show any special ability or disability in art or music?
  8. Does he have any physical defect or lack of motor co-ordination that obstructs learning?

D Results of tests
  1. Achievement
     Score .... Standard .... Subject age..............

In each school several teachers' meetings were devoted to consideration of the writing of the letters, and many individual conferences between principal and teachers were held. Furthermore, it is the general practice for the principal to read all diagnostic letters before they are issued. In short, every precaution is taken to prevent the possibility that an ill-considered or carelessly written letter will reach the hands of a parent. Three typical letters are quoted below. Care has been taken to select letters which are neither entirely commendatory nor unduly critical. In each case the diagnosis includes both desirable and undesirable practices or characteristics, such as might be expected of normal children.

Dear Mr. and Mrs. A———:

This is a report of C———'s progress in his school activities during the first nine weeks of school.

C——— exhibits enthusiastic interest in activities in the classroom as well as on the playground. He is eager to participate and is able to work and play harmoniously with other children. He possesses traits of leadership.

C——— has many commendable study habits. However, he overestimates the value of speed, often sacrificing the quality of his work in order to finish rapidly. He is eager to do, and is capable of doing, supplementary work but should be sure his basic activities are prepared to the best of his ability. He is naturally very quick and alert in every respect and dislikes "slowing up" in any way.

He has made a fine reading adaptation, which is very beneficial to him in all his work. He enjoys books and is able to grasp and apply factual material readily. He is acquiring a firm sentence sense and has learned proper sentence punctuation. He expresses his ideas well in written work but has difficulty expressing himself orally in a concise manner. He needs much experience in expressing his ideas before a group.

Because he works so rapidly, it is often necessary for him to rewrite several exercises in science. He comprehends the material readily but is careless about written activities. He possesses a good background in geography and shows a clear understanding of his work.

Many of his errors in arithmetic are the results of carelessness. He completes all supplementary work. He has made steady improvement on the weekly spelling tests. He should master all words each week.

He shows much interest in music. He has fine musical knowledge. His art work is good.

C——— has shown much interest and ability. He has done good work but should not sacrifice quality for speed.

Respectfully yours,

Dear. Mr. and Mrs. B———:

This is the second report of A———'s progress for the current school year

Social Attitude: A——— continues to display many fine social characteristics. He radiates a very happy personality, which both the children and his teacher appreciate. It is a pleasure to carry on conversations with him because of his many interesting and wholesome reactions. His position while working has shown a marked improvement, and his speech mannerism that I spoke of in his last letter has practically disappeared. Many times A——— takes on a rather silly attitude. He encourages other children to have this same type of attitude, which becomes very disturbing. This is carried over to the playground. I feel that A——— can and should be one of the leaders of the class who encourage good fun and serious work.

Study Habits: Although his study habits are improving, as yet he is not making complete and economical use of his study periods. He is inclined to dream when working independently. Many times during discussion periods he finds it too much work to use his reference materials as the others do, but at other times he is most interested. I hope he will soon maintain this interest during most of the discussions.

Academic Attainments: During the last ten weeks' period his spelling record has been very irregular. He has had as high as fourteen errors and as low as one. I am sure he would have fewer errors if he made thorough use of his time. He is doing high average work in arithmetic and has a thorough knowledge of the long-division processes. In reading A——— still ranks somewhat lower in speed than comprehension. He is becoming more interested in library books. Reading many interesting easy books should increase his speed. He is doing average work in music and somewhat above average in art. In the social-science subjects his work is not always consistent although he is showing improvement. In these subjects he does much independent work, and his span of attention is inclined to be short. He gives attention to the discussions and answers many of the exercises from these discussions instead of the references. With decided effort he should do superior work in these subjects.

If you have any questions in regard to this letter, kindly call Miss D——— for an appointment

Very truly yours,

Dear Mr. and Mrs. C———.

In accordance with the school's plan of informing parents of the progress of their children, I am writing to you in regard to B———.

B——— is trying very hard to adjust himself to the third grade. He has a fine attitude toward his work and wants to do well. However, he is handicapped by his very slow and timid approach to his work. Due to this, it is very hard for him to complete his work, and often he fails to get his assignments done at all.

B——— is a steady, slow worker and does not give up easily. He should be encouraged to express himself more freely as he has some very good ideas

B——— is a slow, deliberate reader. Due to his lack of self-confidence and slowness, he frequently fails to complete his comprehensive tests. I hope B——— reads simple library stories at home to bring up his rate. Then by gaining a thorough understanding and in that way instilling self-confidence, he will be able to complete his work.

The same condition is true in his arithmetic. He progresses very slowly but accurately. When he once has a combination or process mastered, it is his for good.

He is very poor in his spelling work. I feel B——— is nervous about his words and has a complex of fear of making a mistake. Perhaps with extra help at home in oral reading and drill on his spelling words, we can help B——— to gain more self-assurance and promote better independent work.

B——— is very careful and neat about his penmanship.

He is much interested in his Indian work.

If you have any suggestions to offer concerning B———'s habits or attitudes which might be of value toward his school work, I shall be glad to confer with you.

Sincerely yours,

After four years of trial, at the end of which the first four grades were included in the practice, the administration decided to test the reception accorded these letters by the community. A questionnaire was prepared and submitted to the parents in what was perhaps the most conservative district of the city. The two key questions dealt with the preference for the diagnostic letters as compared with the report card and with the comparative efficacy of the letters in interpreting the program and objectives of the school to the parents. The responses were tabulated by grades. The preference for the diagnostic letter was indicated as follows: Grade I, 91 per cent; Grade II, 87 per cent; Grade III, 86 per cent; Grade IV, 64 per cent. On the interpretation of the school, the following percentages testified to the preference for the diagnostic letter: Grade I, 91 per cent; Grade II, 92 per cent; Grade III, 88 per cent; Grade IV, 77 per cent.

During the school year 1935–36, after the plan had been in operation for six years and included all the elementary grades, a more comprehensive survey was undertaken. A detailed questionnaire was submitted to all parents, and responses were received from 883 families. Space permits only a summary of the replies to the key questions, which is given in Table I. Obviously, the survey favors the diagnostic letter on every phase of the inquiry. Only when the combination of report card and letter is proposed, is there any significant variation in the response. Even then, the substantial majority of the families (60.9 per cent) express themselves as being satisfied with the present letter.

TABLE I

SUMMARY OF ANSWERS OF 883 FAMILIES TO KEY POINTS ON QUESTIONNAIRE REGARDING USE OF DIAGNOSTIC LETTERS

QUESTION AND PREFERENCE	PERCENTAGE OF FAMILIES WITH CHILDREN IN GRADE						
	I	II	III	IV	V	VI	All Grades
Do you prefer the diagnostic letter now in use or the report card with a letter or percentage rating?							
Diagnostic letter	93.6	88.7	79.2	76.5	85.9	83.0	85.9
Report card	6.4	11.3	20.8	23.5	14.1	17.0	14.1
Do you get a better understanding of the school's aims and purposes from the diagnostic letter or from the report card?							
Diagnostic letter	95.8	95.3	87.2	88.8	91.7	91.8	92.1
Report card	4.2	4.7	12.8	11.2	8.3	8.2	7.9
Does the diagnostic letter or the report card indicate the better pupil-teacher relationship?							
Diagnostic letter	96.5	97.9	89.2	94.6	96.4	90.4	94.2
Report card	3.5	2.1	10.8	5.4	3.6	9.6	5.8
The diagnostic letter attempts to report progress in the school subjects and growth and adjustment in personality. Would you prefer to have a report-card rating on the school subjects studied, together with a letter on the personality rating, or the composite letter now being used?							
Diagnostic letter	66.9	67.7	65.5	56.9	59.4	54.0	60.9
Report card and letter	33.1	32.3	34.5	43.1	40.6	46.0	39.1
Prefer to have the letter issued							
Four times a year	71.0	62.8	63.3	66.5	61.2	65.0	64.8
Twice a year	2.0	0.7	2.5	0.7	3.0	0.8	1.3
Three times a year	0.0	1.9	0.0	1.5	2.2	1.7	1.7
Once a month	27.0	34.6	34.2	31.3	33.6	32.5	32.2

Of even greater interest, perhaps, are the many voluntary letters and comments which accompanied the questionnaire. Apparently many patrons feared that the survey meant a possible discontinuance of the diagnostic letter and hastened to implore the school authorities to retain the letter in its present form. Following are a few of the typical comments received.

> I sincerely hope you will not go back to the report card system. This method gives a much better understanding of the child and his characteristics.
>
> I think the teachers should be complimented upon the excellent analyses and sincerely hope the letters will be continued.
>
> By all means continue the diagnostic letter. It is a wonderful way of letting parents know how their children are progressing in school subjects, also as to personality rating when away from home and in a group.
>
> The diagnostic letter is a vast improvement over the old fashioned report card, and I believe it will replace the report card in the near future. The report-card system is obsolete right now.

There seems little doubt now that the diagnostic letter has definitely replaced the symbolism of the report card and check list in this community. The hundreds of letters and inquiries received from teachers and school administrators since the initial report[1] of the experiment in 1934 reveal an acute discontent with the traditional report card and a lively interest in the more informal and comprehensive letters.

No claim of perfection is made, but six years of experience and observation lend substantiation to the premises upon which the experiment was founded: (1) The diagnostic letter gives a much clearer picture of academic progress and personality growth than can any abbreviated report card or check list. (2) Introduction of such a letter is entirely feasible if parents are taken into the complete confidence of the school. (3) Parents and children alike prefer this comprehensive report. (4) The descriptive letter gives a much clearer interpretation of the school's program and objectives than does the report card. (5) The letter fosters a much more co-operative relation between home and school. (6) Much of the "passing" complex and undesirable competition can be eliminated by the use of the letter. (7) Teachers can be trained in service to give the results of their analyses in clear and intelligible letters. (8) Most of the mechanical difficulties in issuing letters can be overcome by practice and the occasional employment of inexpensive stenographic help

---

[1] "New Developments in Pupil Report Cards." Educational Research Service, Circular No 4, 1934. Washington: Department of Superintendence and Research Division of the National Education Association, 1934.

A NEW SCALE FOR RATING SCHOOL BEHAVIOR AND ATTITUDES[1]

DOROTHY VAN ALSTYNE
Francis W. Parker School, Chicago, Illinois
LABERTA WEISS HATTWICK
Winnetka Public School Nursery, Winnetka, Illinois
HELEN TOTTEN
St. Christopher School, Dobbs Ferry, New York

Rating scales have demonstrated their usefulness in the elementary-school field. Although theoretically a large battery of tests and observation techniques is necessary for the diagnosis of personality, studies have shown that in practice almost as satisfactory results can be obtained with rating scales, provided the scales are specific and the judges are thoroughly acquainted with the child The teacher who knows the interpretive background of the whole context of a child's environment and sees him in all his relationships from day to day is, after all, one of the best mediums for obtaining evidence concerning the child's personality.

There have been comparatively few scales for rating the many facets of the child's personality. The Haggerty-Olson-Wickman Behavior Rating Schedule (published by the World Book Company) and the Maller Character and Personality Rating Scale (published by Teachers College, Columbia University) have been the chief devices in this field. The former scale consists of thirty-five items for rating on a five-point scale the mental, physical, social, and emotional aspects of a child's life in school. Each of the five points is described, and a "problem-tendency" score is given for each point. An illustration of the items follows

29. How does he react to frustrations or to unpleasant situations?

Very submissive Long-suffering	Tolerant Rarely blows up	Generally self-controlled	Impatient	Easily Irritated Hot-headed Explosive
(3)	(2)	(1)	(4)	(5)

---

[1] This study was made under a grant from the Behavior Research Fund, Chicago, Illinois

On the Maller scale fifty aspects of character and personality are to be rated. Three points are described briefly the two extremes and the average—as in the following example.

A. Leadership
  1. Never leads in any social activity.
  2. Occasionally acts as leader.
  3. Is a born leader; has high degree of initiative.

In a follow-up study of Winnetka nursery-school children, a need was felt for a scale which would be more specific than these, a scale with more than five points for most items so that descriptions could be found which would be suitable for all types of children, and especially a scale which would be constructed in terms of actual classroom situations so that the teacher could more accurately make judgments. A seminar group of Winnetka teachers met under the guidance of the writers for a period of two years and formulated a rating scale to fill these requirements. The teachers represented all grades from the nursery school through the sixth grade. Incidents of behavior taken from classroom observation of children were used as the foundation of the scale.

METHODS USED IN CONSTRUCTION OF THE RATING SCALE

1. Teachers were asked to select the two "best-organized" and the two "most poorly organized" children in their classes. "Best-organized" was interpreted to mean "those children with whom the teacher was making no particular effort at adjustment because their development was proceeding smoothly," and "poorly adjusted" was to refer to "those children on whom the teacher was expending time and effort to bring about a balance in the children's personalities, both socially and emotionally."

2. The teachers were asked to report incidents of classroom behavior on which they had based their judgments and to keep a record of further incidents over a four-week period.

3. The incidents were then sorted into specific classroom situations, such as, "When visitors are present," "When a child's activity is interfered with by another child," "When opportunity for free activity is given." As incidents were sorted, it became apparent that

the child's response to each of these situations could be classified in a tentative order of desirability. It would have been valuable to have exactly the same specific incident indicated in each response level, but this arrangement was not possible because of the age range covered. For example, in the nursery school a child's activity may be interfered with by another child who is continually bumping into him on a bicycle, but at the fifth-grade level the interference may consist chiefly in the disturbing questions asked by another child. Then, too, a large number of these specific items would be necessary to make any kind of judgment on the child's ability to deal with interference. Therefore, some sort of generalization had to be made to cover the different sorts of incidents in the different grades as well as those within the same grade. For convenience the situations were tentatively classified under the following headings: (1) "Co-operation with Adults, Response to Adults," (2) "Emotional Security," (3) "Group-Mindedness–Sociability–Response to Other Children," (4) "Responsibility–Dependability–Self-Reliance–Self-Respect," and (5) "Initiative."

4. Each teacher was asked to divide her class into six groups: Group I, the children whom she considered the best organized; Group II, those who were next best organized; and so on. The groups need not be composed of equal numbers of children. The teacher was asked to evaluate the response levels thus far outlined under each situation heading in terms of the children in each of the six groups. The following directions were given:

> Take each situation in order and think of the probable or usual response to that situation by the children listed in Group I. If the response can be characterized by a level already noted, place a "1" in front of the level If it is not present, formulate the level which does characterize this group and insert in the outline where you judge it belongs. Do the same for the other five groups

Eliminations and criticisms of headings were also requested.

5. A tentative form of the scale containing thirty situations was evolved. This scale was mimeographed and presented in booklet form to the teachers of the seminar group with the request that they rate each of the children in their classes in a separate booklet. The directions were that, if for a given child no response level was found,

a statement was to be inserted in its adjudged proper place. In this way about 30 children were rated at each grade level from nursery school through the sixth grade, a total of about 250 children.

6. The tentative forms were revised on the basis of the evidence gathered from the rating of the 250 children. In the revision the following points were kept in mind: (*a*) insertion of new response levels which had been indicated by the teachers, (*b*) formation of new response levels where the frequencies indicated the possible need for other responses, (*c*) elimination of ambiguous wording or wording which might "color" the whole response level, and (*d*) the judgment by the teachers in the group as to the order of desirability of the response levels.

7. The revised scale of thirty-three situations was then mimeographed in booklet form. In this new form the general headings, such as "Responsibility," "Co-operation," etc., were omitted, and the response levels were arranged in random order. This arrangement was used in order that there might be no bias in the teachers' judgments resulting either from the influence of a general heading or from the influence that a "good" or "bad" sequence might have in judging individual children. The random order was also thought to make for a finer scrutiny of each response as individual children were judged.

8. More than 1,200 children were rated by means of the revised scale. Approximately 1,100 were in the Winnetka public schools from nursery school through the sixth grade, 50 were in the emergency nursery schools in Chicago, and 75 in two rural schools in Kansas. The ratings were made in March, 1934.

RESULTS

Frequencies for each response level were calculated for all 1,100 Winnetka children, and decile scores were devised. Each child's ratings were scored, and grade medians were calculated. On the whole, the medians tended to show little change from grade to grade. This fact may indicate that the raters were thinking in terms of their own respective grades and that, although actual growth may have occurred, each teacher has his own level of expectancy for children of his grade.

The final form of the scale consists of thirteen situations which were selected from the original thirty-three on the basis of statistical analysis.[1] Multiple-factor correlations were used to determine which items could be best grouped together under general headings. There finally emerged five general headings: "Co-operation," "Social Consciousness," "Emotional Security," "Leadership," and "Responsibility." A rating of these general headings represents the average decile score of responses in three different situations. Each of these situations has five to ten response levels, the majority having six or seven. An example of a situation with its response levels arranged in order of desirability follows.

IX. When a child has opportunity to take responsibility for a group task—
  Directs task and carries it to completion for group benefit (10)
  Takes responsibility for a task without being reminded (9).
  Takes task but does not complete it (7).
  Takes responsibility for task only when especially asked by teacher (6).
  Takes responsibility for a task only when special interest is involved (4).
  Rarely wants to take charge of task (3).
  Cannot take responsibility for a group task (2).

The figures in parentheses are decile scores based on the ratings of 1,100 children of the Winnetka public schools.

The situations are averaged to obtain the rating for each heading: "Co-operation," "Social Consciousness," etc. An example of one situation from each group is given below. Each situation is followed by its highest- and lowest-scoring response levels. The intervening response levels have been omitted for the sake of brevity.

Co-operation

II. When there is a group project to be carried on—
  Enjoys co-operating with others to improve the group work (10).
  Hinders group activity (0)

Social Consciousness

IV When a child has a social task to be completed—
  Carries task to completion even by sacrifice of other interests (10).
  Tries to escape task by contrary behavior or by shifting jobs (1).

---

[1] An article on the statistical analysis of the scale will appear in a forthcoming number of the *Journal of Educational Psychology*

Emotional Security

VII. When faced with failure—
Sees cause of failure and corrects it (10).
Becomes irritable or angry, or cries (0).

Leadership

X. When in a social situation which allows for initiative—
Can organize and lead large group (10).
Shows no social initiative (1).

Responsibility

XI. When he has finished studying a subject—
Has time so planned that he knows what work to do next (10).
Wanders around room annoying other children, or sits in seat bothering others (1).

VALUE AND USE OF THE WINNETKA SCALE FOR RATING BEHAVIOR AND ATTITUDES[1]

1. A rating scale which can be used from nursery school through the sixth grade is valuable for use in early study and diagnosis of personality. It is especially important in a child's early years when habit patterns are in the process of formation.

2. The scale is expressed in the language of the environment in which it is used and in terms of situations in which teachers are interested and which they most frequently note.

3. The ratings help to make the teacher's judgment analytical.

4. The scale is specific in its description of situations and response levels.

5. The best use of the scale will come from judgments made after extended observation (preferably two months or more)

6. The scale should be used for analysis of individual differences within a grade rather than for evaluation of differences between grades.

7. For surveying purposes the total score or the average of all scores may be used.

8. A profile graph, such as that shown in Figure 1, furnishes a clear picture of a pupil's assets and liabilities with respect to the five

---

[1] Published by the Winnetka Educational Press, Horace Mann School, Winnetka, Illinois.

traits of "Co-operation," "Social Consciousness," "Emotional Security," "Leadership," and "Responsibility."

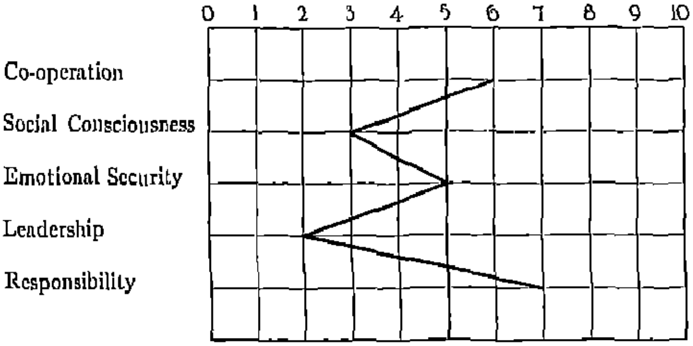


FIG 1.—Profile graph of a pupil rated on the Winnetka Scale for Rating School Behavior and Attitudes

9. The scale is valuable in obtaining cumulative records of a child's behavior in comparison with that of his group from nursery school through the sixth grade.

AN EVALUATION OF THE PROJECT METHOD

HARRY L. TATE
Eli Whitney School, Chicago, Illinois

This article reports the results of an investigation carried out in the spring of 1935 in the Whitney School in Chicago for the purpose of evaluating the project method of teaching. The subjects for the experiment were 237 pupils in Grades II A, IV A, and VIII A. At each of these grade levels two groups were formed which were equated in all factors that strongly influence learning. In each grade one group of pupils, hereafter known as the experimental group, was taught by the project method; the other group, the control group, was taught by any method that the teacher might choose other than the project method. In each grade the same teacher taught both groups of pupils. An arrangement was made whereby the experimental group in each grade met first. Notes on the activities and the discussions of the experimental groups became the basis of the curriculum of the control groups on the following day. Tests were devised to compare the effectiveness of the two methods of teaching.

DEFINITION OF THE PROJECT METHOD

In order that the factor of teacher participation might not be a variable, a strict definition of the project method was adopted and followed to the letter throughout the investigation. The following directions were given to teachers as definitive of the method to be employed.

1. The activity, both physical and mental, shall be *that of the pupils*

2. The planning and engineering of the project shall be *pupil directed.*

3. The teacher's function as a "conventional" teacher shall be *dormant* until *absolute necessity* compels her to *help the class* make a decision or solve some problem.

4. The teacher is to be a *guide* and a *counselor.*

5. She is to *help motivate* the selection of the project.

6. She is to *guide* the unfolding and development of the project by means of objections, questions, and suggestions. This guidance is to be exercised to

prevent the class from acquiring erroneous knowledge and to rescue them from any impasse that might occur.

7. She is to *aid* in supplying materials *only* when necessary.

8. She is to answer questions when the *class cannot*, after due diligence and industry in research, do so.

9. She is to take charge of the class discussion only when necessary to bring some *problem* of discipline, workmanship, or understanding *before the class* for *their* solution. Otherwise, she is to have no direct hand in the control or direction of the class.

10. There is to be no drill.

11. There is to be no recitation of things learned.

12. There is to be no work in the usual sense

13. There is to be no review

14. The words above which are italicized emphasize the point that the project is to be a production of the members of the class and is to be an embodiment of their interests and efforts.

PROCEDURES FOLLOWED

In the experimental groups no predetermined objectives or outcomes were set up toward which the classes were to move or which they were to attempt to master. The outcomes and the objectives were to be those that the pupils themselves determined. Teacher participation was to be kept to the absolute minimum that would be consistent with a wholesome atmosphere of pupil activity wherein freedom was not to be considered as synonymous with unbridled license. The teacher was to use every effort to keep conditions favorable for the pupils to determine for themselves the nature of the project after it had been motivated by her. She was also to determine the succession of steps in the continuous planning of the project; the consummation of those plans; and the activities either antecedent to, concomitant with, or subsequent to, the steps. Objectives, outcomes, and curriculum are thus seen to have been inseparably interwoven. The instant the children determined on an objective, they thereby in large measure fashioned a portion of their curriculum and indirectly predetermined the nature of the outcomes. A nature-study project called "Rabbits" was used in Grade II A, an arithmetic project, "Purchasing Supplies and Equipment for Our Summer Camp," in Grade IV A, and a geography project, "The Weather," in Grade VIII A.

In the control groups the subject matter covered was confined to the same ground over which the experimental groups had advanced. The teacher was privileged to use every teaching device at her command except the project. She could drill, review, or give individual attention, according to the needs of groups or individuals as they arose. *She could give any number of questions or problems or have* unlimited class discussions provided she kept the control curriculum fitted to the general ground of the experimental curriculum.

COMPARISON OF EXPERIMENTAL AND CONTROL GROUPS

Table I gives a summary of the data on the chronological age, the mental age, the intelligence, and the achievement of the pupils included in the experiment. The data on chronological age, intelligence, and mental age came from the school records. For the past several years all children who have entered the Whitney School have been given the Otis Self-administering Tests of Mental Ability. In cases where doubt has arisen concerning the accuracy of the results, the pupils have been retested on another form. The data concerning achievement represent the results that were obtained by giving Initial Comprehensive Test 1 and Initial Comprehensive Test 2 and by combining the results into one score. These tests were used to equate the experimental and the control groups and to evaluate the effectiveness of the project method. They will be described in more detail in a later section of this article.

The data in Table I show that there was no difference which could be considered significant in the chronological age, the mental age, or the intelligence of the two groups in Grade II A. So far as potential achievement in the coming experiment was concerned, neither class was beginning with a handicap. This equality of ability is amply confirmed by the medians of the initial tests considered separately and in combination. In Initial Test C–1 the experimental group made a median of 65.0 and the control group a median of 63.2, the difference being only 1.8 points. In Initial Test C–2 the experimental class secured a median of 52 and the control class a median of 53, the difference being exactly 1 point. When the results of the two tests were combined, the median of the experimental group was 59.5 and that of the control was 58.3. When it is remembered that the two initial tests consisted of 200 items, the difference of 1.2 points is too small to be considered of any practical importance.

The figures for each of the other grades show that the experimental and the control groups were almost exactly equal in chronological age, mental age, and intelligence. The only large differences in achievement medians are those which occur in Grade IV A.

TABLE I

COMPARISON OF EXPERIMENTAL AND CONTROL GROUPS

	Grade II A	Grade IV A	Grade VIII A
Number of pupils:			
Experimental group	36	41	41
Control group	37	40	42
Median chronological age (in years and months):			
Experimental group	7–9	9–8	13–9
Control group	7–10	9–8	13–10
Median mental age (in years and months):			
Experimental group	8–3	9–9	14–0
Control group	8–4	10–1	14–1
Median intelligence quotient:			
Experimental group	108.0	100.0	101.0
Control group	107.0	103.5	102.0
Median score on Initial Test C-1:			
Experimental group	65.0	73.0	67.3
Control group	63.2	64.5	65.5
Difference	1.8±2.7	8.5±2.5	1.8±1.3
Median score on Initial Test C-2:			
Experimental group	52.0	57.2	57.1
Control group	53.0	52.0	56.7
Difference	−1.0±4.1	5.2±3.1	0.4±1.5
Median score on both initial tests:			
Experimental group	59.5	65.5	61.4
Control group	58.3	54.3	60.8
Difference	1.2±6.7	11.2±2.5	0.6±2.5

DESCRIPTION OF TESTS USED

Before the initial tests could be constructed, the teachers had to speculate on the possible fields of knowledge into which the children might be led when guided by their own interests and mental associations. The teachers had misgivings about their ability to predict a course of study, but, on the whole, the fit between these speculative areas of learning and the actual ground covered by the experimental groups was very close.

Two types of tests were used. The first, called "comprehensive tests," included three tests designated as Test C-1, Test C-2, and Test C-3. Test C-1 consisted of one hundred true-false statements and was administered at the beginning and at the end of the experiment. Test C-2 was composed of one hundred multiple-choice questions and was also given at the beginning and at the end of the experiment. Test C-3 consisted of one hundred two answer questions and was given only at the end of the experiment. The purpose of Tests C-1 and C-2 was to measure the progress of the classes. Test C-1 was constructed with the view of measuring the general knowledge of the pupils in the speculative fields of learning. The questions in Test C-2 were formulated with the hope that they would reveal abilities in the following fields: (1) interpreting experiences, (2) making inferences and judgments, (3) making comparisons, (4) detecting differences, (5) initiative, (6) interest, (7) leadership, (8) appreciation, (9) social consciousness, (10) creativeness, and (11) responsibility. Test C-3 was designed to measure the ability of the pupils to recall the concrete objects and processes of the projects and to use them in abstract thinking. Owing to the paucity of such objects that materialized, it became necessary to base most of these questions on the general areas of learning, but with the original objectives in mind.

Weekly tests of the type ordinarily used by teachers, sometimes called the "essay type," were constructed, administered, and scored by the teacher who was in charge of the experiment at each grade level. The questions, ten in number, were framed in such a manner that the pupil had to explain or to discuss an important point in each question. All the weekly tests were edited and approved by the writer.

RELATIVE GAINS OF EXPERIMENTAL AND CONTROL GROUPS

Careful attendance records were kept by all the teachers, and the performance of any child who was not enrolled for the entire duration of the experiment was not allowed to enter into the compilation of data. The gains or losses of the two groups are shown in Table II.

Results on Test C-1.—On Test C-1 in all the grades the control pupils made greater gains than the experimental pupils. In Grade II A the control group was superior to the experimental group by

TABLE II

COMPARISON OF MEDIAN TEST SCORES OF EXPERIMENTAL AND CONTROL GROUPS ON TESTS C-1, C-2, C-3 AND ON TOPICAL TESTS GIVEN BY TEACHERS

TEST	GRADE II A			GRADE IV A			GRADE VIII A		
	Experimental Group	Control Group	Difference	Experimental Group	Control Group	Difference	Experimental Group	Control Group	Difference
Initial Test C-1	65.0	63.2	1.8± 2.7	73.0	64.5	8.5±2.5	67.3	65.5	1.8±1.3
Final Test C-1	74.5	89.5	−15.0± 3.5	70.8	68.5	2.3±2.2	66.4	70.1	−3.7±1.2
Gain	9.5±2.6	26.3±3.5	−16.8± 4.4	− 2.2±2.1	4.0±2.5	− 6.2±3.3	− 0.9±1.5	4.6±1.0	−5.5±1.8
Initial Test C-2	52.0	53.0	− 1.0± 4.1	57.2	52.0	5.2±3.1	57.1	56.7	0.4±1.5
Final Test C-2	68.0	84.5	−16.5± 5.0	60.8	57.5	3.3±3.3	61.2	69.3	−8.1±1.9
Gain	16.0±4.6	31.5±4.5	−15.5± 6.5	3.6±3.0	5.5±3.3	− 1.9±4.5	4.1±1.7	12.6±1.8	−8.5±2.4
Initial Tests C-1 and C-2	59.5	58.3	1.2± 6.7	65.5	54.3	11.2±2.5	61.4	60.8	0.6±2.5
Final Tests C-1 and C-2	71.3	86.5	−15.2± 8.2	63.9	62.8	1.1±2.6	63.3	68.5	−5.2±2.8
Gain	11.8±7.0	28.2±7.9	−16.4±10.6	− 1.6±2.4	8.5±2.7	−10.1±3.6	1.9±2.8	7.7±2.5	−5.8±3.8
Test C-3	86.3	93.5	− 7.2± 3.7	61.8	64.0	− 2.2±1.9	71.2	74.5	−3.3±1.6
Topical tests	38.7	59.0	−20.3± 4.7	48.3	52.3	− 4.0±3.8	59.6	69.0	−9.4±4.2

16.8 points. This difference was the greatest for any grade. In Grade IV A there was a difference of 6.2 points in favor of the control pupils.

A remarkable fact is that the project group in Grade IV A actually sustained a loss in median score. The explanation of the teachers for the lack of gain (and the writer agrees with the teachers) is that pupils need repetition of, and drill on, difficult subject matter if their retention of the material is to be assured. The arithmetic concepts which appeared suddenly in the project and which had to be mastered for immediate use either had not been thoroughly acquired in previous school experiences (long division, for example) or were entirely new (such as fractions and scaling). Even though problems involving scaling did not occur in this particular test, a great amount of class time, which under normal conditions would have been devoted to usual fourth-grade topics, was consumed by the children in discovering and perfecting a scale. In the project in Grade VIII A a great deal of difficult subject matter was involved in the construction of weather instruments. Similar conclusions apply here as have been mentioned in connection with the loss in Grade IV A. In both groups the committees who worked on difficult matters did not take enough time to present their findings to the classes. Neither were the presentations given clearly enough and thoroughly enough to make an impression on the minds of the pupils commensurate with what a teacher-led recitation would have accomplished.

Since the loss in Grade IV A is not statistically significant, it may not be a real one. The results of a repetition of the same test or results obtained by the administering of a different form might not show any loss. If, however, the loss is real, it is probably due to forgetting or to confusion and interference.

The superiority of the gain of the control group in Grade VIII A is statistically significant. The experimental group suffered a loss of 0.9 of a point. The difference in the gains in favor of the control group is 5.5, the smallest difference in any of the grades. It will be noted that, since the classes of the lowest grade established the greatest difference and the classes of the highest grade established the lowest difference, an inverse relation is indicated between grade level and the effectiveness of the project method.

Results on Test C–2.—On Test C–2 none of the groups sustained a loss. The evidence is favorable to the control groups although not nearly so overwhelming as on Test C–1. The superiority of the gain of the control group in Grade II A was again greater than that of the other two grades. The order of the differences for Grade IV A and Grade VIII A was the reverse of that on Test C–1.

On the medians derived by combining the results of the two initial tests, all the gains were again in favor of the control groups. The experimental group in Grade IV A again sustained a loss. These data show that once more the control group of the lowest grade made the greatest superiority in gain over the corresponding experimental group and that the control group of the highest grade made the smallest superiority in gain.

Results on Test C–3.—Test C–3 was not given at the beginning of the experiment because its purpose was to get at the effect on the minds of the pupils of the concreteness of project work, that is, to determine whether the perception of the materials and the objects of the projects and the interrelations existing among their elements, together with the actual handling and manipulation involved in the constructive activities, would develop in the pupils in the experimental groups a greater power to do abstract thinking than that evinced by the pupils in the control groups. As previously stated, the ultimate materialization of the substance of the projects prevented the construction of a test consisting entirely of the kind of items originally planned. Enough were included, however, to give a strong characterization of the element intended Test C–3 was not a progress test.

The superiority of the control groups over the experimental groups is evident in this test also. In Grade VIII A the median of the control pupils is 4 6 per cent higher than the median of the experimental pupils; in Grade II A the median of the control class is 8.3 per cent greater than the median of the experimental class, and in Grade IV A the control-group median gives it a superiority of 3.6 per cent over the experimental-group median If the test measures what it purports to measure, there is not much difference in the outcomes for the two groups, but there is an indication that the control-group pupils, who did no construction work, had slightly greater ability in answering questions related to material properties of the projects than did the project pupils. This fact is all the more striking because the projects were always covered over with cloth during the entire time the control groups occupied the rooms.

Perhaps the visual images acquired by the control pupils through their classroom work when combined with what they had previous to the experiment gave them a better basis upon which to build abstractions than that possessed by the experimental pupils. It may also be possible that too great an intimacy with concreteness inhibits the recall of specific minutiae, abstract thinking being thus retarded. However, the writer is inclined to favor the conclusion that project teaching may be ineffective in causing the retention of visual impressions upon which abstractions may be based. This result may be due to the lack of repetition and drill and to the absence of an intent to retain impressions and ideas at the time they enter the mind.

Results on the topical tests.—Topical tests were given at the end of each week of the experiment, except the last, on the topics that the classes had covered during the week. In Grade II A no test was given in the second week owing to the slowness in the development of the curriculum by the experimental group. The purposes of these tests were to measure the attainments of the pupils week by week and to measure attainment of a different type from that measured by the objective tests. It was thought that providing the pupils freedom in expressing themselves and opportunity to give some diagram answers might reveal outcomes more nearly connected with project teaching. Great care was exercised to limit the questions for any one week to the range of the curriculum material that had been covered in that week. These tests were scored by the teachers who handled the classes at the respective grade levels. In an attempt to make the scoring as objective as possible, credit was given a pupil for points representing parts of an answer that were correct. The number of points to a question varied with the nature of the questions.

The data in Table II on the topical tests show that in every instance the control classes were superior in attainment to the experimental classes, the greatest difference occurring in Grade II A and the smallest in Grade IV A.

In Grade II A the difference of 20.3 in favor of the control class is 52 per cent of the experimental-class median; in Grade IV A the difference of 4.0 in favor of the control group is 8.3 per cent of the experimental-group median; and in Grade VIII A the difference in favor of the control pupils is 15.8 per cent of the experimental-group median. Since the differences for Grades IV A and VIII A are not highly significant, the implication may be that for time periods as short as one week the project method is fairly effective in bringing about an acquisition of learning but that, because of lack of drill, review, and other methods used in conventional teaching, the learning is not retained. The lack of achievement of the experimental groups has been brought out in the data on the progress made over the five weeks of the experiment. It may well be that the point involved is not lack of achievement so much as lack of retention of achievement.

CONCLUSIONS

In this experiment ample evidence was obtained to justify several important conclusions. These are not considered by the investigator to have universal application but are thought of only in light of the empirical findings. The conclusions are: (1) The conventional method of teaching, as judged by the results of Test C–1, is superior to the project method insofar as academic outcomes are concerned. (2) Test C–2, which was designed in the hope that it would reveal traits of project teaching which are supposed to be greater in number and richer in quality than the derivatives of conventional teaching, show that the project children were inferior to the non-project children. (3) The results of Test C–3, which was expected to determine the ability of pupils to recall the concrete objects and processes of the projects and to use these in abstract thinking, show that the non-project children were superior to the project children. (4) The results of the topical tests given each week tend to show that project teaching is fairly effective in producing achievement but ineffective in causing retention of achievement.

OTHER CONCLUSIONS

Although lack of space forbids the publishing of all data, the reader may be interested in other conclusions which seem to be warranted by the evidence growing out of this investigation.

1. An analysis of the test results shows that boys and girls perform equally well under project teaching.

2. Children in Grade II A read about the same amount of literature whether taught by the conventional or by the project method. In Grade VIII A the children under the project method read more.

3. Project children engage in many more kinds of activities than non-project children.

4. An analysis of the teachers' answers to a questionnaire shows that (*a*) projects arouse more interest than conventional methods; (*b*) this interest is sustained, with a little help from the teacher, (*c*) the quantity and the quality of reading are increased; (*d*) the pupils are stimulated to oral expression; (*e*) in the project method there is a stronger correlation with the pupil's personal experiences, and (*f*) there is a lesser correlation of subject matter under the "pure project method."

5. Accurate records kept throughout this experiment show that many so-called "intangibles" or "immeasurable outcomes" of project teaching do exist. The specific outcomes that appeared in this experiment were self-government, group consciousness, and social planning.

6. Children in project work do not naturally run their project into many other subjects allied to the subject with which the project is primarily concerned.

7. Pupils do not naturally prolong a project beyond its reasonable life-period. They terminate the project after attaining the original objectives.

8. The board of education furnished only 31.4 per cent of the items of construction material used in the projects

9. Projects can be built that are of no expense whatever to either pupils or teachers.

10. Children use procedures in project work that closely parallel the conduct of adults in the practical affairs of life.

11. Children show a high degree of stability in planning.

12. Creditable project work can be accomplished on the same time schedule that is used in conventional teaching.

SELECTED REFERENCES ON ELEMENTARY-SCHOOL INSTRUCTION

II. THE SUBJECT FIELDS

This list of references is the second in a series of three lists relating to instruction at the elementary-school level. The preceding list, appearing in the September number of the *Elementary School Journal*, contains items on the curriculum, methods of teaching and study, and supervision. The present list and the next list in the series include references on these same major aspects of instruction, but the items are grouped by subject fields.

READING[1]

WILLIAM S. GRAY

402. BARUCH, DOROTHY W "Trends in Children's Literature Today," *Elementary English Review*, XII (October, 1935), 187-91.

Describes a series of "outstanding trends" in children's literature which were identified in a somewhat broad survey of the field

403. *Better Reading Instruction.* Research Bulletin of the National Education Association, Vol. XIII, No. 5. Washington. Research Division of the National Education Association, 1935. Pp. 273-325.

Reviews "the practices of a group of unusually successful teachers [of reading]" and supplements these with important research findings and recommendations from the general literature on reading instruction

404. BETTS, EMMETT ALBERT. *The Prevention and Correction of Reading Difficulties.* Evanston, Illinois: Row, Peterson & Co , 1936. Pp. xiv+402

Identifies basic issues relating to the prevention and the correction of reading difficulties, discusses these "in the light of available evidence," and provides numerous practical suggestions for diagnosing and correcting reading deficiencies.

405. BETTS, EMMETT ALBERT. "Reading Disability Correlates," *Education*, LVI (September, 1935), 18-24.

Presents a helpful outline of "correlates" of reading disability and points out that no one correlate can account for all types and degrees of difficulties and, furthermore, that no one remedial procedure can be used for all types of disabilities.

---

[1] Publications concerned with reading in the primary grades are not included in this list but are found in the list of selected references appearing in the April number of the *Elementary School Journal*

406. BETTS, EMMETT A., EVERETT, MABEL, and RODEWALD, FRANCES. "Remedial Reading Based on First-Teaching," *Journal of Exceptional Children*, II (February, 1936), 88–91.

   Presents conclusions based on informal experimentation with a group of thirty-seven children in Grades I–VII, inclusive, who applied for special help in reading during the summer of 1935.

407. BRUNOT, EUGENIA. "Books for Boys and Girls Who Don't Like To Read," *Elementary English Review*, XII (November, 1935), 210–12.

   Discusses some of the common obstacles to children's enjoyment of books and suggests themes and titles which might appeal to children who do not like to read.

408. BUCKINGHAM, B. R., and DOLCH, E. W. *A Combined Word List*. Boston: Ginn & Co., 1936. Pp. iv+186.

   Presents a tentative vocabulary list for Grades II–VIII, inclusive, which combines the results of an original vocabulary study involving over 23,000 children and 2,700,000 words and the words of other vocabulary studies previously reported.

409. CARR, JOHN W. "The Approach to Reading as a Meaningful Process," *Elementary English Review*, XIII (April, 1936), 145–48.

   Emphasizes the fact that reading is primarily a thinking process and that the recognition of words and of meanings is a unified process.

410. DURRELL, D. D. "Providing for Individual Differences in Reading," *Education*, LVI (September, 1935), 30–36.

   Describes "school provisions for children with severe handicaps in reading" and methods of "discovering and providing for individual differences in the regular classroom."

411. DURRELL, D. D. (Chairman). "Research Problems in Reading in the Elementary School," *Elementary English Review*, XIII (March, April and May, 1936), 101–6, 111; 149–56; 184–93. Also published as Fourth Annual Research Bulletin of the National Conference on Research in Elementary School English.

   Presents a summary of significant research in the field of elementary-school reading, emphasizes directly or by implication various principles underlying instruction in reading, and identifies problems requiring further investigation.

412. EAMES, THOMAS HARRISON. "A Frequency Study of Physical Handicaps in Reading Disability and Unselected Groups," *Journal of Educational Research*, XXIX (September, 1935), 1–5.

   Presents the results of an examination of 100 reading-disability cases and a control group of 143 unselected school children to determine physical handicaps "which have been demonstrated as causative factors in reading disability."

413. ENGLEMAN, F. E. "The Relative Merits of Two Forms of Discourse When Applied to Children's Factual Content Reading Material," *Journal of Educational Research*, XXIX (March, 1936), 524–31.

Presents the results of a study to determine the relative merits of conversational and of narrative-expository material when used in Grades IV and VII.

414. FINCK, EDGAR M. "Relation of Ability in Reading to Success in Other Subjects," *Elementary School Journal*, XXXVI (December, 1935), 260–67.

Presents the results of a study in Grades IV–VIII, inclusive, showing "that improvement in ability to read is accompanied by improved achievement in those subjects which involve a great deal of reading."

415. GATES, ARTHUR I., and BOND, GUY L. "Reading Readiness: A Study of Factors Determining Success and Failure in Beginning Reading," *Teachers College Record*, XXXVII (May, 1936), 679–85.

Reports results of a study of four, large, first-grade classes of children who were given instruction in reading shortly after entering school.

416. GOODYKOONTZ, BESS. "The Relation of Pictures to Reading Comprehension," *Elementary English Review*, XIII (April, 1936), 125–30.

Points out the fact that the relation of pictures to comprehension has been emphasized frequently of late and reviews the characteristics of pictures if they are to serve effectively in motivating reading.

417. GRAY, WILLIAM S. "Summary of Reading Investigations," *Journal of Educational Research*, XXIX (February, 1936), 407–32.

A brief summary of investigations relating to reading published between July 1, 1934, and June 30, 1935.

418. GRAY, WILLIAM S. "The Place of Oral Reading in an Improved Program of Reading," *Elementary School Journal*, XXXVI (March, 1936), 517–26.

Reviews briefly the decline of oral reading during the last three decades, considers whether this trend harmonizes with sound educational policy, and discusses values inherent in oral reading and methods of attaining them

419. HOCKETT, JOHN A. "Reading Interests of Z-Section Pupils," *Elementary School Journal*, XXXVI (September, 1935), 26–34.

Presents findings on the difficulty and the interest appeal of sixty-four books from a list of more than a thousand reported "by intermediate-grade pupils in Z-section classes."

420. KELLEY, VICTOR H. "The Reading Abilities of Spanish and English Speaking Pupils," *Journal of Educational Research*, XXIX (November, 1935), 209–11.

Reports the results of a study among 692 pupils in Grades IV–VIII, inclusive, to determine "the reading abilities of Spanish- and English-speaking children" and "the particular phases of reading in which the Spanish-speaking children are deficient."

421. McCallister, James M. *Remedial and Corrective Instruction in Reading.* New York: D. Appleton-Century Co., Inc., 1936. Pp. xviii + 300.

Interprets the results of five years of experimental work in terms of the practical problems involved in diagnosing and correcting reading deficiencies and in guiding reading activities in the study of content fields.

422. Payne, Anna. "An Enriched Course in Reading for Grade Six," *Elementary English Review*, XII (December, 1935), 268-70; XIII (January, 1936), 25-28.

Describes various phases of a reading course for Grade VI that has a two-fold objective: to develop power in reading and to promote appreciation.

423. Traxler, Arthur E. "An Experiment in Teaching Corrective Reading to Eight Seventh-Grade Pupils," *Journal of Educational Research*, XXIX (December, 1935), 247-53.

Reports the results of an experiment with a group of poor readers taught by an inexperienced teacher under the direction of the school psychologist.

424. Tulchin, Simon H. "Emotional Factors in Reading Disabilities in School Children," *Journal of Educational Psychology*, XXVI (September, 1935), 443-54.

Discusses the relation of various emotional factors to reading disabilities and presents four case studies which illustrate some of the problems involved.

425. Witty, Paul A., and Kopel, David. "Causation and Diagnosis of Reading Disability," *Journal of Psychology*, II (1936), 161-91.

Evaluates factors associated with poor reading and presents a technique for diagnosis that emphasizes "only those items which are essential in adequate appraisal of reading difficulty and practical in typical school [illegible]ment."

426. Witty, Paul A., and Kopel, David. "Motivating Remedial Reading: The Interest Factor," *Educational Administration and Supervision*, XXII (January, 1936), 1-19.

Reviews studies relating to reading interests, presents the results of a study of the interests of poor readers, and "describes a remedial technique based upon the utilization of ascertained interests."

427. Witty, Paul A., and LaBrant, Lou L. "Aims and Methods in Reading Instruction," *Educational Trends*, IV (June, 1936), 5-9, 18.

Emphasizes the facts that reading is a thought process, that it should serve the interests and needs of the pupil, and that it should be so presented that every child "may sense and experience success."

428. Woody, Clifford, and Keeler, L. W. "The Improvement of Reading in the Elementary and Secondary School." *Ann Arbor, Michigan*: Bureau

of Educational Reference and Research, School of Education, University of Michigan. Pp. 97 (mimeographed)

Deals with practical problems involved in improving instruction in reading, such as "aims" and methods of realizing them, "diagnosis and remedial instruction," "reading readiness," etc.

429. WORLTON, J. T. "Individualizing Instruction in Reading," *Elementary School Journal*, XXXVI (June, 1936), 735–47.

Presents data showing the spread in reading ability at each grade level from Grade III to Grade VII and describes the methods and results of an experiment which aimed to provide for the varying needs of the pupils.

430. WRIGHT, ETHEL C. "The Thorndike Library Viewed by a Children's Librarian," *Elementary English Review*, XII (December, 1935), 264–67.

Presents the results of informal experimentation to determine the value and appeal of "The Thorndike Library," which includes seven simplified classics for children

431. YOAKAM, G. A "The Improvement of Reading in the Middle Grades," *Education*, LVI (September, 1935), 1–6.

Discusses possible causes of slow progress in reading by many pupils in the middle grades and lists the general and specific abilities for which teachers should provide if they would promote "steady improvement in reading."

432. YOAKAM, G. A "The Improvement of Reading and Study Habits," *Elementary School Journal*, XXXVI (November, 1935), 175–84

Discusses the responsibility of the school for teaching reading and study habits, outlines basic problems in teaching pupils to study, and presents practical measures for improving study habits.

ENGLISH[1]

R L. LYMAN

433. BETTS, EMMETT A. "An Experimental Appraisal of Certain Techniques for the Study of Oral Language Activities," *Education*, LVI (January, 1936), 301–4.

A description and evaluation of the University of Iowa method of research in oral English, involving the use of an electric recording apparatus

434. BROWN, MERLE "A Study of the Vocabulary Used in Oral Expression by a Group of Fourth Grade Children," *Educational Method*, XV (October, 1935), 39–44

Side lights on the topics on which a group of 45 children talk freely, the placement of 2,764 words and their 38,898 frequencies with reference to the Thorndike list of 10,000 words The first 1,000 words of this list form the chief vocabulary of fourth-grade pupils

---

[1] See also Item 303 in the list of selected references appearing in the April, 1936, number of the *School Review* and Items 467, 468, and 471 in this list

435. BUTTON, NELLE. *Creative English.* Boston: Ginn & Co., 1935. Pp. x+240.

A frank exposition of the author's methods of teaching creative writing. The chapter on the training of the senses is especially suggestive.

436. CRAWFORD, C. C., and ROYER, MADIE M. "Oral Drill versus Grammar Study," *Elementary School Journal*, XXXVI (October, 1935), 116–19.

An experimental study which indicates that the oral-drill approach is fully as effective as elaborate work on grammar rules accompanied by the writing of original sentences.

437. DALE, EDGAR. "Teaching Motion-Picture Appreciation," *Harvard Teachers Record*, VI (February, 1936), 23–28.

Faces the issue: "Shall we face reality [about war, poverty, marriage, sex] or shall we avoid it through escape religion, escape literature, escape movies? . . . Is art a mental monastery in which we can avoid the rigors of an unkind world?"

438. DAWSON, MILDRED A. "Recent Sixth Grade Language Textbooks," *Elementary English Review*, XIII (March, 1936), 85–89, 100.

Analysis of recent books reveals a decreasing emphasis on language technicalities and a corresponding increase in practical exercises in communication and study helps; more attention to individual needs, to socialized procedures, to self-help features, including cumulative standards of appraisal.

439. *An Experience Curriculum in English.* Report of the Curriculum Commission of the National Council of Teachers of English. English Monograph No. 4. New York: D. Appleton-Century Co., Inc., 1935. Pp. xx+324. $1.75.

The most important document issued in many years dealing with English problems of the elementary-school, secondary-school, and college levels. Stresses the "social emergence" of the curriculum, promulgates the activity-integration program; advances instrumental grammar and functional composition; avoids grade placement of materials; and in general meets the principles of "progressive theories of education."

440. FISHER, MARY SHATTUCK. *Language Patterns of Preschool Children.* Child Development Monographs, No. 15. New York: Teachers College, Columbia University, 1934. Pp. xvi+88.

Analysis showed "consistently high proportion of remarks about the self at all age levels" and an increase at successive age levels of remarks about other people and of questions and commands. Author concludes that chronological age is probably more important than mental age in determining the various stages of language development.

441. FULLER, LORRAINE. "The Effect of Kindergarten Speech Training on Primary Grade Progress and Achievement of Children with Foreign Language Handicaps," *California Journal of Elementary Education*, IV (August, 1935), 165–73.

Data indicate the value of speech training in the kindergarten to assure greater language and reading readiness in the early grades.

442. GREENE, HARRY A. "Research Technics Peculiar to English," *The Application of Research Findings to Current Educational Practices*, pp. 133–39. Official Report of the American Educational Research Association, 1935. Washington: American Educational Research Association of the National Education Association, 1935.

A survey of the strength and weaknesses of six vital research procedures for investigations in the field of English.

443. HORNER, ZELDA. "An Observation and Preliminary Investigation of Choral Speaking," *High Points in the Work of the High Schools of the City of New York*, XVIII (May, 1936), 18–25.

Concludes that choral speaking has greater possibilities than any other means for accomplishing the aims of teaching oral interpretation.

444. LEWIS, RICHARD B., and ROBERTS, HOLLAND D. "Foundations of the School Verse Speaking Choir," *California Journal of Secondary Education*, XI (February, 1936), 98–100.

A highly selective bibliography of the choral-speech movement in the United States.

445. LITTWIN, MAXWELL F. "An Experimental Investigation of the Effect of Method of Presentation upon the Imaginative Quality of Descriptive Writing among Elementary-School Pupils," *Journal of Experimental Education*, IV (September, 1935), 44–49

Indicates the superiority of methods of teaching, in the following order: direct sense-training method, literary-model method, and picture-study method.

446. LITTWIN, MAXWELL F. "Three Methods of Developing Imagination in Pupils' Writing," *English Journal*, XXIV (October, 1935), 654–61.

Describes an admirable experiment in three methods of teaching—picture study, literary model, and sense-training—designed to develop the creative aspects of composition.

447. LONGSTAFF, H. P. "Effectiveness of Children's Radio Programs," *Journal of Applied Psychology*, XX (April, 1936), 208–20.

Radio programs appear to be equally popular with accelerated, average, and retarded pupils in a group of 1,020 children. The intelligence of the listeners plays little part in determining who listens or what programs are recalled The order of popularity was as follows Jimmy Allen, Jack Armstrong, Buck Rogers, Orphan Annie, Skippy, "Deep-Sea Adventures of Davy Jones."

448. LOWEN, MAUD B. "The Effect of Environment on Creative Ability in Fourth-Grade Children," *Elementary School Journal*, XXXVI (October, 1935), 120–26.

Compares the poetry written by a group of children of underprivileged home environment with the creative work of pupils from more favored home conditions. Indicates that home environment, whether good or poor, has little effect on pupils' creative work, that high or low intelligence quotient is not predictive of creative ability; and that girls excel boys in this capacity.

449. MacLatchy, Josephine (Chairman). "A Bibliography of Unpublished Studies in Elementary School English, 1925-1935," *Elementary English Review*, XII (December, 1935), 260-63, 67; XIII (January and February, 1936), 20-24, 28; 58-62, 63.

A valuable bibliography of seventy-seven significant researches in all phases of elementary-school English prepared as Masters' and Doctors' theses in various universities.

450. Magdanz, Frances. "English Takes the Open Road," *Progressive Education*, XIII (May, 1936), 340-44.

An admirable statement of the English program of the "progressive" school.

451. Stagner, Ross. "Judgments of Voice and Personality," *Journal of Educational Psychology*, XXVII (April, 1936), 272-77.

Presents ratings of ten speakers by twenty-five judges for general impression, voice intensity, flow of speech, poise, clearness, aggressiveness, and persuasiveness. Indicates that judges are influenced by specific vocal characteristics in appraising personality traits. A challenging type of study for specialists in oral English and speech.

452. Swineford, Frances. "The Effect of Motivation on Scores on a Grammar Test," *School Review*, XLIV (June, 1936), 431-44.

One of the mildest forms of motivation, namely, a desire on the part of pupils to improve their scores, produces improvement in the second form of grammar test and appeals most effectively to pupils of upper mental-age levels.

453. Wrightstone, J. Wayne. "Achievements in English in Activity Programs," *Elementary English Review*, XIII (March, 1936), [illegible].

Evidence from a modest objective investigation is advanced to support the conclusion that the newer-type (activity) programs produce proficiency in language as compared with the older-type (subject-matter) schools. The distinctions between the two programs are not sharply drawn.

SPELLING[1]

Frederick S. Breed

454. Almack, John C., and Staffelbach, Elmer H. "An Experimental Study of Individual Improvement in Spelling," *Journal of Educational Research*, XXIX (September, 1935), 6-11.

Indicates that spelling achievement may be improved by using an [illegible] technique to discover words whose meaning but not spelling has been acquired and then teaching these words. Spelling errors in later compositions were thus reduced about 2 per cent.

455. Breed, Frederick S., and Carpenter, Irene M. Standard Self-administering Spelling Test. Chicago: Lyons & Carnahan, 1936.

---

[1] See also Item 384 in the list of selected references appearing in the September, 1936, number of the *Elementary School Journal* and Item 466 in this list.

A test in two forms, administered without dictation, for Grades II–VIII. A manual of directions with norms and validation data is available

456. DAVIS, VERA, and SCHRAMMEL, H. E. Davis-Schrammel Spelling Test Emporia, Kansas: Bureau of Educational Measurements, Kansas State Teachers College, 1935.

A context test, in Forms A and B, for Grades I–IX. Suitable for group measurement but too short for individual measurement. Validation unreported.

457. FITZGERALD, JAMES A. "The Overlap of Child and Adult Writing Vocabularies," *Journal of Experimental Education*, IV (June, 1936), 364–67.

Reports that in Fitzgerald's writing vocabulary of children and Horn's writing vocabulary of adults 76 per cent of the 100 words of highest rank in each were identical and that 3,300 words of the first vocabulary were contained in the first 5,000 of the second.

458. FREEMAN, FRANK N., GRAY, W. S., and BREED, F. S. "Summaries of Current Practices in the Teaching of Handwriting, Phonics, and Spelling," *Childhood Education*, XII (January, 1936), 173–77.

The last section of the article indicates some of the outstanding features of present-day spelling instruction in the primary grades.

459. GATES, ARTHUR I. *Generalization and Transfer in Spelling*. New York: Teachers College, Columbia University, 1935. Pp. vi+80.

Reports results of two elaborate, controlled experiments on the value of generalization in spelling, particularly the use of rules and the grouping of words according to orthographic and phonetic similarities. Concludes that such a program of generalization, while it does not increase ability to spell the words studied, "does tend to increase to some extent the power to spell new words."

460. HOWLAND, HELEN COTTON. "A New Procedure in Teaching Language," *Elementary English Review*, XIII (March, 1936), 90–93, 115.

Describes an informal method of teaching spelling in close relation with handwriting and composition. Evidence concerning the results is not yet adequate for appraisal

461 MINNEAPOLIS PUBLIC SCHOOLS. *Course of Study in English Composition, Correct Usage, and Spelling*. Minneapolis, Minnesota. Carroll R. Reed, Superintendent of Schools, 1935. Pp. 96

A bulletin resulting from dissatisfaction with local methods and a desire to examine the teaching of spelling in the light of the trend toward "functional expression in English"

462. SCHONELL, FRED J. "Ability and Disability in Spelling amongst Educated Adults," *British Journal of Educational Psychology*, VI (June, 1936), 123–46.

Spelling disability among 598 educated adults was found to be between 4 and 5 per cent and to be due to causes that were (*a*) temperamental, (*b*) intellectual, (*c*) sensory, and (*d*) environmental. The detailed results have suggestive value for educational diagnosticians

463. **Waterman, Ivan R.**, and **Melby, Irving R.** "Evaluation of Spelling Textbooks," *Elementary School Journal*, XXXVI (September, 1935), 44–52.

Presents a set of criteria employed by the California State Curriculum Commission in the evaluation of spelling books. The fact-finding was more scientific than were the interpretations, even to a disinterested observer.

464. **Watson, Alice E.** *Experimental Studies in the Psychology and Pedagogy of Spelling.* Teachers College Contributions to Education, No. 638. New York: Teachers College, Columbia University, 1935. Pp. xii + 144.

A report of spelling experiments extending through eight years in elementary and secondary schools. Presents data on the spelling vocabularies of pupils, spelling errors, diagnostic and remedial procedures, and various problems in methods of instruction, including the use of rules and the teaching of homonyms.

465. **Wise, Carl T.** "The Spelling Difficulty of 1,102 Words Found in Twenty Spellers," *Elementary School Journal*, XXXVI (December, 1935), 281–89.

Presents difficulty values for 1,102 words found in a list of 3,600 words common to eleven or more spelling books but not found in recognized spelling scales.

HANDWRITING

Frank N. Freeman

466. **Cutright, Prudence.** "Script-Print and Beginning Reading and Spelling," *Elementary English Review*, XIII (April, 1936), 139–41, 160.

Reviews studies of the effect of manuscript writing on reading in the primary grades and presents new evidence concerning its effect on the amount written and on spelling.

467. **Freeman, Frank N.** "An Evaluation of Manuscript Writing," *Elementary School Journal*, XXXVI (February, 1936), 446–55.

A review of the experimental studies bearing on the educational merits of manuscript writing at different grade levels and recommendations based on their findings.

468. **Goetsch, Walter R.** "The Effect of Early Handwriting Instruction," *Elementary School Journal*, XXXVI (December, 1935), 290–98.

A comparison of the quality and the speed of the cursive handwriting in the middle grades of children who began with cursive and children who began with manuscript writing.

469. **Kirk, Winifred Day**, and **Kirk, Samuel A.** "The Influence of the Teacher's Handedness on Children's Reversal Tendencies in Writing," *Pedagogical Seminary and Journal of Genetic Psychology*, XLVII (December, 1935), 473–77.

An experimental study in which no relation was found between the hand used by the teacher in setting the copy and the reversals made by children

470. LOURENÇO, M BERGSTRÖM. "The ABC Tests: A Method of Verifying the Maturity Necessary To Learn How To Read and Write," *Pedagogical Seminary and Journal of Genetic Psychology*, XLVIII (March, 1936), 243–48.

A series of eight prognostic tests used extensively in South America.

471. MELBO, IRVING R., and WATERMAN, IVAN R. "Evaluation of Textbook Materials in Handwriting," *Elementary School Journal*, XXXVI (November, 1935), 204–10.

A statement of criteria for the evaluation of textbooks in handwriting and an account of the application of these criteria to nine textbooks.

THE SOCIAL SCIENCES[1]

R. M. TRYON

472. ALVORD, WAYNE. "History That Works," *Nebraska Educational Journal*, XVI (February, 1936), 56, 69.

A suggested setup for history instruction intended to stimulate independent pupil thinking and to result in genuine interest and learning instead of encyclopedic knowledge.

473. BROWN, WILLIAM B "Functional Social Studies for the Junior High School," *California Journal of Secondary Education*, X (October, 1935), 439–44.

A statement of the philosophy underlying, and the principles governing, a so-called "new course" in the social sciences for Grade IX.

474. COLE, LILLIAN. "Projects in the Social Sciences," *Sierra Educational News*, XXXI (October, 1935), 60–62.

A discussion showing the educational value of both individual and group projects in the social sciences

475. CONLON, FLORENCE D. "The Integration of Art and Social Studies in the Elementary School· The Unit Approach in the Study of Indian Life," *Educational Method*, XV (January, 1936), 208–14.

Outlines an art unit with auxiliary development of social-studies activities. Strongly upholds art as a complete and worth-while unit in itself.

476. DE BOER, JOHN J. "Civilizing the Social Studies in the Elementary Grades," *Illinois Teacher*, XXIV (November, 1935), 79–80, 96.

An adverse criticism of the present setup in the social sciences in the elementary grades and a plea for a curriculum in this field constructed in the light of what is in comparison with what must be, with the contrast expressed in terms of living realities

---

[1] See also Items 368, 370, and 377 in the list of selected references appearing in the September, 1936, number of the *Elementary School Journal*.

477. FALLIS, CLARE R. "The Project Method in History," *School* (Elementary Edition), XXIV (April, 1936), 697–98.

Suggested projects for use in history classes, with a warning against too much dependence on this method of instruction

478. HALTER, HELEN. *Society in Action: A Guide for the Social Studies*. New York: Inor Publishing Co., 1936. Pp. xi+136.

A volume full of practical suggestions for a social-science program suitable for Grades VII, VIII, and IX. The suggestions pertain to content and procedure. A practical guide for the teacher's use

479. HILLDRUP, R. LEROY. "Predilections in the New Social Studies Curriculum," *Virginia Journal of Education*, XXIX (December, 1935), 118–20.

Pertinent comments on the new curriculum in the social sciences for the state of Virginia. Attention is called to the pedagogical dangers inherent in the words "integration" and "flexibility" as used by the authors of the plan

480. HOFFMAN, ROSS J. S. "Education and the Attack on History," *American Review*, VI (January, 1936), 257–70.

A discussion of the present social science revolt against history, which is demanding the liberation of the social sciences from the domination of history. Suggests emphasizing the present at the expense of the past and substituting sociology for history.

481. KELTY, MARY G. *Learning and Teaching History in the Middle Grades*. Boston: Ginn & Co., 1936. Pp. viii+604.

A presentation of the psychological and the social foundations of intermediate-grade history, together with detailed plans and suggestions for learning and teaching early and later American history and the beginnings of civilization

482. KLING, EVELYN LOVETT. "The Use of Visual Aids in Teaching History and Geography: An Illustration," *Educational Screen*, XIV (September, 1935), 200, 202, 203.

An account of the use made of visual aids in Grade V and the benefits derived from the plan.

483. KOCH, MARGARET A. "Social Studies and the Correlated Courses," *Progressive Education*, XII (November, 1935), 458–61.

Contains much sound, sane, and sensible advice with respect to the establishment of certain desirable relations between the social sciences and other subjects.

484. KOOPMAN, G. ROBERT. "Helping Children Face Social Realities," *Junior-Senior High School Clearing House*, X (September, 1935), 13–19.

Suggests ten ways of making social-science work realistic to junior high school pupils.

485. MOORE, EOLINE WALLACE. "Our State—A Social Studies Unit for Upper Grades," *Educational Method,* XV (February, 1936), 272–74.

An account of the research activities carried on by a class of student teachers in organizing a unit for the study of their state.

486. MULAIK, STANLEY B. "Content and Correlation of the Major Subjects of the Curriculum with Social Studies," *Texas Outlook,* XX (February, 1936), 34–35.

An argument in favor of correlating the social sciences with other subjects to the end that all connected with the educational enterprise will be benefited

487. NIETZ, JOHN A. "Guiding Principles in Teaching the Social Studies," *Education,* LVI (January, 1936), 314–16.

Lists in co-ordinate form opinions regarding the objectives, curriculum, and methods of teaching the social studies.

488. OAGLEY, EDITH BROOKS. "The Social Studies and the Art of Living," *New York State Education,* XXIII (January, 1936), 322–26, 349–52.

A somewhat wordy and lengthy plea for more action and less academic emphasis in the teaching of geography, civics, and history in the elementary and junior high schools

489. ROGERS, MINNIE E., and HENNESSEY, JULIA F. "An Experiment in Low-Seven Social Studies," *University High School Journal,* XIV (December, 1935), 88–93.

A brief description of an attempt to adjust content and method in English and so-called "social studies" to the needs, interests, and capacities of first-semester pupils of a junior high school in California.

490. WATSON, EMMA. "Teaching Procedures and Social Studies," *Texas Outlook,* XX (June, 1936), 19–20.

A blanket indictment of traditional methods of teaching the social sciences, along with some pertinent suggestions relating to the socialized recitation and the problem assignment

491 WEAVER, ROBERT B. "Why Sugar-Coat Social Science?" *Junior-Senior High School Clearing House,* X (February, 1936), 342–47.

Suggestions for making social-science courses interesting to pupils without any of the "sugar-coating" of the child-centered courses. Outlines a six-step program of instruction which will appeal to boys and girls.

492. WILLIS, MARGARET "The Real Task of the Social Studies· Some Implications," *Progressive Education,* XIII (April, 1936), 282–85

A few pertinent suggestions concerning the directions in which radical revision of the curriculum in the social sciences might proceed

493. WOESTEMEYER, INA FAYE. "What Shall We Teach in History?" *Kansas Teacher,* XLII (February, 1936), 7–8.

Suggested conceptions to be developed in connection with the teaching of history The resultant values are outlined.

GEOGRAPHY

EDITH P. PARKER

The following list was derived from a canvass of material published since August 1, 1935. It includes those publications which seem to be the more helpful, significant contributions. Some articles were excluded because of their brevity and because of the fact that they duplicated, in essence, longer treatments included.

494. AITKEN, W. E. M. "Geography for Grades V–VIII," *School* (Elementary Edition), XXIV (October, 1935, to June, 1936), 122–26, 209–13, 303–6, 397–401, 490–94, 582–86, 672–76, 766–70, 856–58.

Makes specific suggestions for geography work in Grades V–VIII.

495. BLOOD, PEARLE. "The Preparation of Geography Units by Student Teachers," *Journal of Geography*, XXXV (January, 1936), 18–24.

Presents excellent instruction for the preparation of plans for teaching elementary units in geography. Though designed primarily for the use of student teachers, the article is exceedingly valuable for experienced teachers.

496. CAIN, MAUD. "A Study of Thirteen Standard Geography Tests," *Journal of Geography*, XXXIV (September, 1935), 252–56.

Analyzes standard tests to discover dominant kinds of geographic questions contained.

497. GOEBEL, ANNE. "Some Learning Difficulties in Geography," *Nebraska Educational Journal*, XV (September, 1935), 270, 302.

Calls attention to a few terms and ideas that children must master in order to avoid various learning difficulties.

498. HALVERSON, LYNN H. "A Quantitative Analytical Comparison of Geography Textbooks," *Journal of Geography*, XXXV (February, 1936), 60–67.

Outlines points to be considered in the evaluation of textbooks in geography, basing selection of points on the requisites of effective geography teaching.

499. HARRINGTON, ELDRED R. "On the Teaching of Geography," *Educational Method*, XV (February, 1936), 255–58.

Stresses necessity in geographic work of giving children opportunity to think and gives numerous examples of specific questions which provoke thinking.

500. KUSCH, MONICA HENRIETTA. "An Experiment in Fifth Grade Field Work," *Journal of Geography*, XXXV (May, 1936), 179–85.

Discusses values of field work at elementary level with concrete illustrations of field trips conducted in Cleveland.

501. MELBO, IRVING R., and WATERMAN, IVAN R. "Pictures in Geography Textbooks," *Elementary School Journal*, XXXVI (January, 1936), 362–76.

Reports an examination of pictures in textbooks in terms of number, size, content, legibility, and the like.

502. MILLER, GEORGE J. (Editor). *Life in Asia*. Geographic Education Series. Bloomington, Illinois: McKnight & McKnight, 1936. Pp. 346.

Contains a compilation of articles from the *Journal of Geography* that pertain to the organization of geographic material dealing with Asia.

503. MILLER, GEORGE J. "Geography in Education," *School and Society*, XLIII (April 18, 1936), 526–32.

Treats present status and distinctive character of geography. Illustrates geographic interpretation in terms of the Italian-Ethiopian situation.

504. MOYER, JOSEPHINE, and TAYLOR, FRANCES E. "Introduction of the Map to Fourth Grade Children," *Journal of Geography*, XXXIV (September, 1935), 249–52.

Describes a museum lesson designed to help children visualize actual features represented on a relief map of North America.

505. PARKER, EDITH P. "The Breadth and Depth of Preparation in Specific Teaching Fields," and discussion by Arthur K. Loomis, *The Academic and Professional Preparation of Secondary-School Teachers*, pp. 170–86 Proceedings of the Institute for Administrative Officers of Higher Institutions, Vol. VII. Chicago: University of Chicago Press, 1935.

States amount and kind of preparation necessary for effective training of teachers of geography.

506. PHILIPPINE ISLANDS, DEPARTMENT OF PUBLIC INSTRUCTION, BUREAU OF EDUCATION. *Course of Study in Geography for Grades IV–V:* Vol. I, pp. 176; Vol. II, pp. 162. Manila. Bureau of Printing, 1934.

Helpfully outlines units and teaching procedures.

507. RENNER, GEORGE T., JR., "Blackboard Wall Maps," *Journal of Geography*, XXXIV (December, 1935), 369–74.

Describes a method of drawing highly generalized or conventionalized blackboard "special-purpose" maps—economical both in time and expense.

508. RIDGLEY, DOUGLAS C. "A Lesson with World Maps," *Journal of Geography*, XXXIV (December, 1935), 377–79.

Suggests a specific exercise for helping children identify on a globe portions of the earth's surface represented on various kinds of maps.

Educational Writings

REVIEWS AND BOOK NOTES

Legal aspects of education. For adequate mastery of American educational statecraft a knowledge of past and current progress in public school law is essential. Study of school legislation alone is not sufficient. To this study must be added observation of the constant stream of court decisions which construe the statutes and establish and modify a host of precedents, defining to a large extent the place that public education occupies in the social scene. Note that legal precedents are not immutable, that they are being changed more or less continuously to fit newly recognized necessities. How many school superintendents are now prepared to say specifically in which direction the currently accepted principles of what may be called the "common law of American education" ought to develop?

As yet only a scant few graduate schools of education offer respectable instruction in school law or encourage research in this field. Among these few the University of Chicago is numbered, and this review examines two products of its enterprise, doctoral dissertations in school law.

Garber,[1] now of the State Teachers College at Mankato, Minnesota, first searched the debates of constitutional conventions in thirty-seven states for the views expressed regarding the relation of public education to the safety of the state, individual and collective economic well being, and social progress. What he found is heartening, and his disclosures of the discussions of such issues as public versus private responsibility for education and state versus local responsibility and authority will be revealing to many readers.

Next, Garber studied some 450 leading decisions of the higher courts bearing on these and related topics, and the result is a readable and informative exposition of the principles now forming the basic common law of education as a function of the American state. With some reluctance it must be said that he has, for the most part, viewed these principles uncritically and has made little or no attempt to envision what they will be or ought to be a decade or a generation hence. He has, however, stated them so clearly and correctly that they stand ready for more critical and prophetic examination, to which we may venture a hope that Garber himself will contribute.

---

[1] Lee O. Garber, *Education as a Function of the State: Its Legal Implications*. Minneapolis, Minnesota: Educational Test Bureau, Inc., 1934. Pp. viii + 100.

Punke, now of the Georgia State Woman's College at Valdosta, gives us a much-needed study[1] of a somewhat less philosophical theme, yet one of great social significance, as well as of immediate practical value to school boards, superintendents, and business officers. Here is a smoothly written, well-organized, and readily intelligible digest of more than nine hundred important court decisions affecting all phases of the acquisition and the management of public-school property. The acquisition of buildings and sites, construction contracts, contractors' surety bonds, purchases of equipment and supplies, and the sale or other disposition of school property are among the topics receiving treatment in one or more chapters each.

Perhaps most interesting to those not immediately concerned with property responsibility is the brief chapter on the use of school property for community purposes by organizations other than the school. Here the reader wishes that Punke had been a little less laconic and had permitted himself to elaborate and reflect aloud at some length, but such elaboration is perhaps as well reserved for a different place.

M. M. CHAMBERS

AMERICAN YOUTH COMMISSION OF THE
AMERICAN COUNCIL ON EDUCATION

Education and pressure groups in America.—In a recent book[2] an attempt is made to give "an educational interpretation of the nature and interplay of organized interests in American society" (p. 3), as determined through a study of "their literature, their reported activities, and the comments of their national leaders, often in personal interview" (p. 8).

The first of the ten chapters defines pressure groups, shows their influence on cultural change in and out of the school, and urges educators to manifest interest in cultural change. Chapter ii discusses the federal investigation of public utilities as an apt illustration of how private interests play on popular prejudice; how they influence schools through informational pamphlets, textbook selection, and retainers paid to professors, and how the refusal of an orthodox public mind to understand industrial change plays into the hands of the utilities. Chapter iii, "Nationalism for Teacher, Textbook, and Student," concerns nationalistic attitudes and activities of "patriotic" groups, loyalty oaths for teachers, military training in public high schools and colleges, and nationalism and peace in textbooks Chapter iv is devoted to the schools and organized religion, and attention is given to rites and celebrations in the schools, religious bias in selecting school personnel, religious instruction in and out of school, and state support for parochial schools. Chapter v deals with six crucial questions in the problem of securing public support for "free" education: How much free schooling shall be offered? What amount of schooling shall be provided for pupils of low mentality? Can America provide an enriched curriculum for all? Shall one political-geographic area be responsible for school support outside that area? Shall educational claims take precedence over claims for other public service? Should the educational profession have anything to say about taxes and support?

---

[1] Harold H. Punke, *The Courts and Public-School Property.* Chicago University of Chicago Press, 1936 Pp xvi+314. $3 00.

[2] Bruce Raup, *Education and Organized Interests in America* New York: G. P Putnam's Sons, 1936 Pp vi+238 $2 50

Chapters vi and vii deal with "Elements of Crisis in American Culture." Chapter vi treats particular issues, such as preparedness and war, the preservation of our institutions, competition and private profit, governmental interference in business, and "rights" of taxpayers. Chapter vii treats concepts, such as authoritarianism in America (church and state), the function of the teaching profession, the relation of the school to the community, the discipline of labor for pupils slow in academic learning, and the idea of the school's "presenting all sides fairly." By means of a chart showing the attitudes of forty-six groups on twenty-six issues, chapter viii gives graphically the positions taken by organized groups on the public issues set forth in chapters vi and vii. Chapter ix considers in detail what the school should do regarding controversial issues; reproduces the questionnaire used in securing data on this point; and presents the essential findings in charts, graphs, and discussion. The author notes that many groups reflect the same policy on several issues, but for widely diverse reasons. The concluding chapter is largely interpretative and relates chiefly to the public and the educator's function. The author sketches and discards different philosophies of adjustment, to arrive at his own view; he believes that there should be movement toward a clearly conceived goal, through a sequence of encouraging steps, with toleration of digressions which seem expedient at particular moments.

Extensive quotations consume space but give direct contact with group attitudes. Selection of quotations could pervert the stand taken by groups, but the author seems to have avoided this difficulty. Quotations are adequately documented. The author is correct in anticipating that readers will sense repetition, but the quotation method makes it difficult to avoid this defect. However, detail in presenting and analyzing material—in chapter ix, for example—might have been reduced. Moreover, some readers might like the evidence for such statements as, "America has the potential wealth for a universal rich education" (p. 112).

In spite of scattered weaknesses, however, the author has ably surveyed the scope and demonstrated the importance of pressure groups in educational policy and practice in America; has given considerable insight into the methods of such groups; has shown how difficult it is for the school to be fair and unbiased in a society conditioned in general for maintaining the status quo, and has shown that an understanding of pressure groups is important to educators who are conscientiously interested in the rôle of their profession in a democratic society. The book should appeal to both teachers and administrators and should provide valuable reading for all students of social problems.

Harold H. Punke

Georgia State Woman's College
Valdosta, Georgia

Parents and children.—The field of parent education has expanded tremendously during the past fifteen years. Various workers, including psychologists, have attempted to place parent education on a scientific basis. It has been recognized that the attitudes and the behavior of parents are of tremendous influence in fashioning the personalities of their children. It is not easy, however, to determine the attitudes of parents toward their children because direct questioning is of relatively little value. Various methods have therefore been devised in the past in attempts to identify parental attitudes.

The present volume[1] reports the study of parent-child relationships as shown in clinical case studies. The data were drawn from the case records assembled by the National Committee for Mental Hygiene The purpose of the author's study was to determine the effect of this parent-child relationship on the personality development of the child. The specific data collected were examples of different parental reactions to children. The cases were selected to include a wide range of children's problems in order that, as the author states, samples of a range of parental behavior might also be included.

"Sixteen cases representing a wide range of children's problems were selected" (p. 45). From these records every statement of parents' reactions to children, their ideas and opinions, and their interpretations of their feelings toward the children were listed on cards and given to a selected number of judges for ranking. These judges were selected from twenty-five clinics, and sixteen of the clinics returned the rankings filled in by one or more persons.

From the studies of the responses of the judges and of the case records, a number of conclusions were drawn. Among these are the following: that disturbances like enuresis appear to be associated with rejection by the father accompanied by rejection or over-protection by the mother; that those children who are judged to be rejected by both parents have the greatest number of aggressive behavior problems. It is impossible in a short review to list the various conclusions reached by the author, but the two mentioned indicate the general trend of the author's statements. It is curious to notice, for example, that either rejection or over-protection by the mother plays an important rôle in the development of enuresis. It is difficult indeed to understand how two such opposite types of behavior may produce a similar result. Obviously, therefore, neither of these two types of behavior can be of importance

The study presents a courageous attempt to evaluate clinical case studies for the purpose of understanding the importance of parent-child relationships. It is one of the few studies of clinical case records which has been scientifically conducted and carefully evaluated. Unfortunately, the rambling style and the inclusion in a great many places of irrelevant matter make the report extremely difficult to read. One sometimes suspects that an author who is writing a short monograph feels that it is his duty to expand the material as much as possible and that, for this reason, irrelevant material finds its way into the presentation. It may be, of course, that the difficulties inherent in the material reported are responsible for the manner of presentation.

---

[1] Marian J Fitz-Simons, *Some Parent-Child Relationships*. As Shown in Clinical Case Studies. Teachers College Contributions to Education, No 643. New York: Teachers College, Columbia University, 1935. Pp xii+162 $1 75.

MANDEL SHERMAN

The scientist at work.—The sixth book[1] of a series of science readers written for use in elementary schools tells about some of the subjects that scientists study and some of the facts that they have learned. The material is organized into five units, relating to earth sciences and astronomy, biology, physics, science in industry and art, and the ways that science helps progress. The sections of each unit have been written by men and women who are outstanding students in their fields of interest. At the close of each section are given a number of activities that are intended to direct and to extend the further study of the young reader. At the close of the book is a list of references that suggest profitable reading on the subjects discussed.

The authors have attempted to show the intimate association of the work of scientists with the development of industry and art by telling how different kinds of pictures are made, how glass making developed, how common metals are derived, how rubber is prepared, and how science is related to the development of the present methods of transportation. Through word pictures, appropriate illustrations, and suggested things to do, the reader is given an idea of some of the experiences which scientists have had in their work. In this way an attempt has been made to give an understanding and appreciation of the way in which a scientist works and of some of his outstanding characteristics, such as diligence, patience, exactness, sincerity, and open-mindedness. The idea has been emphasized that many of the things commonly used today are the result of patient experimentation and study by numbers of workers.

The style of the book is dignified and direct, but at times it seems a bit too formal to be of greatest interest to the elementary-school child. The print is large and clear. The book is well and appropriately illustrated by pictures and drawings in black and white. The cover is attractive. This book should be valuable for use in the elementary school both as a science reader and as a reference book.

FLORENCE G. BILLIG

WAYNE UNIVERSITY, DETROIT, MICHIGAN

Orientation material for courses in current problems.—A strong emphasis at all levels of instruction on current affairs has been an outstanding characteristic of courses in the social sciences for a decade or more. The chief difficulty encountered by those desiring to acquaint pupils with current happenings has been the lack of suitable background material, systematically organized. To meet this difficulty is the chief objective of three volumes[1] which treat a limited number of current problems universally recognized as significant. As indicated by the titles, these volumes are concerned with problems relating to national issues, social and economic planning, and international issues.

---

[1] Edith M. Patch and Harrison E. Howe, *The Work of Scientists*. New York: Macmillan Co., 1935. Pp. viii+488. $0.76.

The material in Volume I of the series is organized in terms of the traditional categories: economic, social, and governmental or political. The use of these categories in classifying the material may on first thought seem advisable, but, when the problems under each are analyzed, few or any of them fall completely within the category. For example, "Problems of the Family" is the title of a chapter under the general head "Social Problems." Such a classification will probably hinder more than help high-school pupils who are hyper-conscious of the pressing economic problems faced by their families. However, in the hands of a teacher who makes no attempt strictly to organize the material that he presents in terms of the traditional categories—social, economic, and political—the discussions of the twenty problems which this volume contains will prove of great value.

The foregoing comments with respect to the use of the traditional categories in organizing material apply to Volume II with almost equal pertinency. In this volume is included material on economic planning and social planning, the expression "changes in government" being used instead of "government problems" as in Volume I In Volume III certain international issues are treated co-ordinately with no attempt to classify them, the nature of these issues making a general classification both undesirable and impractical.

Passing from the organization of the material to the material itself, the reviewer desires to congratulate the authors on their excellent selection and attractive presentation. The problems and issues selected for consideration are not those of another age, but the pressing problems of our own time, the difficulties with which the present generation of pupils will have to grapple. To have available for use in high-school classes discussions of these problems and issues such as these volumes contain is a blessing which the reviewer hopes many, many teachers will enjoy.

Justice would not be done to these worth-while volumes if mention were not made of the excellent teaching aids with which they are equipped Pertinent illustrations, graphs, charts, and diagrams are scattered here and there throughout each book. All these aids to instruction have been well selected and well placed. At the close of most of the chapters appear such teaching aids as questions, activities, topics for further study and report in class, a vocabulary test, and references for easy and more difficult reading. If a generation of high-school pupils could be given the opportunity to study the content, read the suggested reading, answer the questions, master the vocabularies, and do the exercises contained in these three volumes, the future of democratic government in this country would be greatly safeguarded. Knowledge of, and practice in thinking about, problems of their own time are gravely needed by the citizens of a country whose destiny lies in their own hands. These volumes supply some of the knowledge and suggest the practice needed by these citizens.

---

[1] Dudley S Brainard and Leslie D Zeleny, *Problems of Our Times*· Vol. I, Fundamental National Issues, pp xvi+200; Vol II, Economic and Social Planning, pp xvi+350, Vol III, International Issues, pp xviii+224. New York McGraw-Hill Book Co, Inc., 1935 and 1936

R. M. TRYON

Art appreciation presented in terms of daily experience.—The authors of a new series of *Art Stories*[1] place appreciation in pleasant relation with other phases of art education. The text of the books of the series aims to direct a child's constructive seeing into an awareness which will function in all his experiences.

The underlying plan of the series has been to present the art concepts of color, line, and mass through the daily experiences of childhood, and throughout the books appreciation is suggested not as a new phase of consciousness but as enjoyable observation of familiar objects and situations which may bear constructively on the child's subsequent activities.

By avoiding hackneyed terminology and by keeping "great masterpieces" closely related to childish efforts of expression, the authors present various phases of art as a natural part of childish interest and activity. Thus, the child is not asked to stretch toward conceptions of architecture, sculpture, and painting; from ideas of a toy town or a doghouse, through successive interests in how buildings are planned, made, or improved, he may come to appreciate the beauty of an old-world street or a modern dwelling.

Each book of the series treats successive steps of color, the beauty of living organisms as seen in animals, beautiful rooms, and interesting costumes, as well as drawing, painting, and building. Reading material on each of the phases mentioned has been prepared with careful consideration for expanding interests and growth from one experience to another. Thus, the study of color, which in Book I dealt with the child's pleasures in the bright, pure, rainbow colors and helped him to discover their all-pervasiveness in his world, is extended in Book II to mixed colors and an awareness of light and dark properties of color and their relation to neutral tones. Book III, recalling concepts previously stressed, carries on to the delights of "in-between" colors. The illustrators of the series have made excellent contributions throughout the material dealing with color. Any child must linger happily over the brilliant pages of Easter eggs, the gay parrot, or the garden pools.

Just as color is progressively treated, so each other subdivision, both in text and illustration, suggests a type of seeing and enjoying which should not only bear on the child's technical skill but should affect his entire learning attitude.

Another point to be heartily welcomed for its sound psychology is that the child's creative effort is given place in an artistic tradition and happily related to some really great expression of a master in this tradition. Thus, the reproduction of a spontaneous line drawing by a little child is seen to have its place in a scheme of illustration which is enriched by a Dürer drawing, and the child is shown that his modeled, lop-eared rabbit is akin to some fine piece of sculpture.

---

[1] William G. Whitford, Edna B. Liek, and William S. Gray, *Art Stories:* Book II, pp. 168, $0.80; Book III, pp. 176, $0.88. Curriculum Foundation Series. Chicago: Scott, Foresman & Co.

Processes, often the keynote of a child's interest, are shown, and the inherent possibilities and limitations of any material are pointed out. The child is led to discover that expressive drawing or painting transcends mere photographic reality and that pleasing pictures are based not on imitation but on design qualities.

Throughout the series the lively work of illustrators, in the charming end papers, page illustrations, and designs, contributes delightfully to reading material which capitalizes a child's eager curiosity and his willingness to observe. On such a basis children's enjoyment of these books seems assured

ANN V. HORTON

CLEVELAND MUSEUM OF ART

CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY AND PRACTICE

Abstracts—Graduate Theses in Education: Teachers College, University of Cincinnati, 1931–1936, Vol. II. Compiled and edited by Carter V. Good and Gordon Hendrickson. Cincinnati, Ohio: Teachers College, University of Cincinnati, 1936. Pp. xx+250. $2.00.

BETTS, EMMETT ALBERT. *The Prevention and Correction of Reading Difficulties.* Evanston, Illinois: Row, Peterson & Co., 1936. Pp. xiv+402. $2 00.

BROADY, KNUTE O. *Enriched Curriculums for Small Schools.* The Small School in Action Series. Lincoln, Nebraska: Teachers College and the University Extension Division, University of Nebraska, 1936. Pp. xvi+250.

Conference on Examinations: Under the Auspices of the Carnegie Corporation, The Carnegie Foundation, and the International Institute of Teachers College, Columbia University, at the Hotel Metropole, Folkestone, England, June 8th to 10th, 1935. International Examinations Inquiry, 1935, Vol. II. Proceedings edited by Paul Monroe. New York: Teachers College, Columbia University, 1936. Pp. xviii+300. $3.15.

The Construction and Use of Achievement Examinations: A Manual for Secondary School Teachers. Prepared under the Auspices of a Committee of the American Council on Education. Edited by Herbert E. Hawkes, E. F. Lindquist, and C R. Mann. Boston: Houghton Mifflin Co , 1936 Pp. vi+496. $2.40.

Educational Psychology. Edited by Charles E. Skinner. New York. Prentice-Hall, Inc., 1936. Pp. xxvi+754. $3.20.

Federal Support for Public Education: A Report of an Investigation of Educational Need and Relative Ability of States To Support Education as They

Bear on Federal Aid to Education. Made under the direction of Paul R. Mort and under the auspices of Columbia University Council for Research in the Social Sciences. New York: *Teachers College, Columbia University*, 1936. Pp. xvi+334.

Fleming, Walter L. *Louisiana State University, 1860–1896.* Baton Rouge, Louisiana: Louisiana State University Press, 1936. Pp. [illegible]. $3.00.

Garrison, S. C., and Garrison, K. C. *Fundamentals of Psychology in Secondary Education.* New York: Prentice Hall, Inc., 1936. Pp. [illegible]. $[illegible]

Growth and Development: The Basis for Educational Programs. New York: Progressive Education Association (310 West Ninetieth Street), 1936. Pp. viii+292. $2.50.

Hampton, Vernon B. *New Techniques in Social Science Teaching:* A Case Book. Stapleton, New York: John Willig Press, 1936. Pp. [illegible]. $2.75.

Hampton, Vernon B. *Reorganizing the Social Studies:* A Survey. Stapleton, New York: John Willig Press, 1936. Pp. 60. $1.25.

Higher Education and Society: A Symposium. Norman, Oklahoma: University of Oklahoma Press, 1936. Pp. vi+324. $3.00.

Jones, Vernon. *Character and Citizenship Training in the Public School:* An Experimental Study of Three Specific Methods. Chicago: University of Chicago Press, 1936. Pp. xii+404. $3.00.

Judd, Charles Hubbard, with the co-operation of Ernest R. Breslich, J. M. McCallister, and Ralph W. Tyler. *Education as Cultivation of the Higher Mental Processes.* New York: Macmillan Co., 1936. Pp. viii+[illegible]. $[illegible]

Kelty, Mary G. *Learning and Teaching History in the Middle Grades.* Boston: Ginn & Co., 1936. Pp. viii+694. $2.40.

Kilpatrick, William Heard. *Remaking the Curriculum.* New York: Newson & Co., 1936. Pp. 128. $0.80.

Melton, Arthur W., Feldman, Nita Goldberg, and Mason, Charles W. *Experimental Studies of the Education of Children in a Museum of Science.* Studies in Museum Education. Publications of the American Association of Museums, New Series, No. 15. Washington: American Association of Museums, 1936. Pp. vi+106. $1.00.

Morgan, John J. B. *The Psychology of the Unadjusted School Child.* New York: Macmillan Co., 1936 (revised). Pp. viii+340. $2.25.

Personality Adjustment of the Elementary-School Child. Fifteenth Yearbook of the Department of Elementary School Principals. Bulletin of the Department of Elementary School Principals, Vol. XV, No. 6. Washington: Department of Elementary School Principals of the National Education Association, 1936. Pp. 227–672. $2.00.

The Place of Mathematics in Modern Education. Eleventh Yearbook of the National Council of Teachers of Mathematics. New York: Teachers College, Columbia University, 1936. Pp. vi+258. $1.75.

Schorling, Raleigh. *The Teaching of Mathematics:* A Source Book and Guide. Ann Arbor, Michigan: Ann Arbor Press, 1936. Pp. viii+248.

Sharman, Jackson R. *The Teaching of Physical Education.* New York: A. S. Barnes & Co., Inc., 1936. Pp. viii+238. $1.60.

Shields, H. G. *Junior College Business Education.* Studies in Business Administration, Vol. VI, No. 4. Chicago: University of Chicago Press, 1936. Pp. viii+94. $1.00.

Stone, Clarence R. *Better Primary Reading:* How To Adapt Reading Instruction to the Varying Needs of the Children. St. Louis, Missouri: Webster Publishing Co., 1936. Pp. xvi+536.

Sublet, Frank G. *Education for Industry and Citizenship.* Australian Council for Educational Research Series, No. 45. Melbourne: Melbourne University Press, 1936. Pp. 144.

Three Decades of Progress—Eastern Kentucky State Teachers College, 1906–1936. Prepared by Members of the Faculty. Edited by Jonathan T. Dorris. Eastern Kentucky Review, Vol. XXIX, No. 1. Richmond, Kentucky: Eastern Kentucky State Teachers College, 1936. Pp. 364.

Tippett, James S., in collaboration with the Committee of the Parker School District, Greenville, South Carolina. *Schools for a Growing Democracy.* Boston: Ginn & Co., 1936. Pp. viii+338. $2.00.

Walz, John A. *German Influence in American Education and Culture.* Philadelphia: Carl Schurz Memorial Foundation, Inc. (225 South Fifteenth Street), 1936. Pp. 80.

Whipple, Gertrude. *Procedures Used in Selecting School Books.* Chicago: University of Chicago Press, 1936. Pp. viii+176. $1.50.

Wilds, Elmer Harrison. *The Foundations of Modern Education:* Historical and Philosophical Backgrounds for the Interpretation of Present-Day Educational Issues. New York: Farrar & Rinehart, Inc., 1936. Pp. xii+634.

Zook, George F., and Haggerty, M. E. *The Evaluation of Higher Institutions:* I, Principles of Accrediting Higher Institutions. Chicago: University of Chicago Press, 1936. Pp. xviii+202. $2.00.

BOOKS PRIMARILY FOR ELEMENTARY-SCHOOL TEACHERS AND PUPILS

Boyce, George A., and Beatty, Willard W. *Mathematics of Everyday Life:* Finance Unit, pp. xii+88, $0.62, also Finance Unit Answer Key; Health Unit, pp. xiv+130, $0.72, also Health Unit Answer Key; Leisure Unit, pp. xiv+156, $0.73, also Leisure Unit Answer Key; Drill Unit, pp. xiv+182, $0.82, also Drill Unit Answer Key. New York: Inor Publishing Co., 1936.

Cotteral, Bonnie and Donnie. *The Teaching of Stunts and Tumbling.* New York: A. S. Barnes & Co., Inc., 1936. Pp. xvi+338. $3.00.

Eichel, Charles G., Kehoe, Edward J., Hornstein, Ignus O., and Smith, Floyd R. *The Treasure Chest of Literature.* For Seventh Year—Complete, pp. xiv+626; For Eighth Year—Complete, pp. xii+626. Boston: Houghton Mifflin Co., 1936. $1.08 each.

HAMLIN, JOHN. *Tales of an Old Lumber Camp*: A Story of Early Days in a Great Industry. Boston: D. C. Heath & Co., 1936. Pp. iv+184. $0.80.

MOTT, DOROTHY C. *Boys and Girls of New Jersey Now and Long Ago*. Tenafly, New Jersey: Howard Schenck Mott, Jr., 1935. Pp. 158. $1.00.

NEBLETTE, C. B., BREHM, FREDERICK W., and PRIEST, EVERETT L. *Elementary Photography*: For Club and Home Use. New York: Macmillan Co., 1936. Pp. viii+254. $0.72.

PANGBURN, WEAVER WEDDELL. *Adventures in Recreation*. Prepared for the National Recreation Association. New York: A. S. Barnes & Co., Inc., 1936. Pp. viii+138.

Radio Plays for Classroom, Auditorium, or Club Program: *The [illegible] Saves the Day, Dusky Singing, Brief Glory, The Man Who Discovered the Sun, Not for Ladies, The Pen Is Mightier, Mr. Elliot's Crazy Notion, The Raven's First Flight*. Pittsburgh, Pennsylvania: Scholastic (Chamber of Commerce Building), 1935 and 1936.

Robert Louis Stevenson's Treasure Island. Adapted by T. E. Dunshee and Minna Ludeke. Boston: D. C. Heath & Co., 1936. Pp. x+214. $0.68.

RUGG, HAROLD, and KRUEGER, LOUISE. *The First Book of the Earth Workbook*, pp. 72, $0.24; *Nature Peoples Workbook*, pp. 70, $0.24; *Communities of Men Workbook*, pp. 78, $0.24. Boston: Ginn & Co., 1936.

RUGG, HAROLD, and KRUEGER, LOUISE. Man and His Changing Society: Vol. V of the Elementary School Course, *The Building of America*. Boston: Ginn & Co., 1936. Pp. x+508. $1.08.

SEELY, HOWARD FRANCIS. *Experiences in Thought and Expression*. Newark, New Jersey: Silver Burdett Co., 1936. Pp. xvi+412. $1.48.

STORM, GRACE E. Guidance in Reading Series, Child Story Program: *Nip and Tuck*, pp. 46; *Bob and Judy*, pp. vi+154; *Good Times Together*, pp. vi+154; *Friends about Us*, pp. viii+248; *Neighbors and Helpers*, pp. viii+332. Chicago: Lyons & Carnahan, 1936.

Teachers' Lesson Unit Series: No. 40 (revised), *Travel on Land, on Sea, and in the Air* by Bearnice Skeen and *Bonds of Air* (How Aviation Binds the Nations Together) by Inga Marie Carter; No. 88, *Budgeting: the Arithmetic of Finance* by Florence R. Howe and *Our Government and Ourselves* by Bessie Y. Pinto; No. 89, *An Old World Festival—A Social Study of Europe* by Nora A. Carter, *Our Classroom Travel Bureau*: A Social Science Project, by Irene M. Kaplan, and *Our Trip Abroad* by Eva Dotson; No. 90, *History of the World from Its Creation* by Virginia Rowe Spiller, *Our School Becomes the World* by Mary Reed Wood, *Our School Becomes the City* by Grace M. Clarke, and *History of Lighting* by Marian Young; No. 92, *The Calendar Teaches Arithmetic and Geography* by Pearl B. Willard and Libby K. Isaacs, *Water* by Eleanor Sanderson, *Our Farm* by Laura A. Grothe, and *Our Living World* by Grace Jones; No. 94, *Our Feathered Friends* by Jessie Mae Halsted and Marjorie Mendenhall, *Common Land Birds* by Ethel L. Leake, *Sightseeing Ani-*

mal Tours by Lula Krause, and *Our Physical World* by Ebba W. Hascall. New York: Teachers College, Columbia University, 1936.

WEBSTER, EDWARD HARLAN, with the co-operation of JOHN E. WARRINER. *Good English through Practice:* Book I, pp. viii+216, $0.72; Book II, pp. viii+216, $0.72; Book III, pp. viii+200, $0.72. Yonkers-on-Hudson, New York: World Book Co., 1936.

PUBLICATIONS OF THE UNITED STATES OFFICE OF EDUCATION AND OTHER MATERIAL IN PAMPHLET FORM

Annual Report of the Rockefeller Foundation, 1935. New York: Rockefeller Foundation (49 West Forty-ninth Street). Pp. xvi+480.

BLANTON, ANNIE WEBB. *The Child of the Texas One-Teacher School.* Bureau of Research in the Social Sciences, Study No. 17. University of Texas Bulletin No. 3613. Austin, Texas: University of Texas, 1936. Pp. 112.

BUROS, OSCAR K. *Educational, Psychological, and Personality Tests of 1933, 1934, and 1935.* Studies in Education, No. 9. Rutgers University Bulletin, Vol. XIII, No. 1. New Brunswick, New Jersey: School of Education, Rutgers University, 1936. Pp. 84.

CHAMBERLAIN, LEO M., and MEECE, LEONARD E. *The Local Unit for School Administration in the United States:* Part I, pp. 44; Part II, pp. 56 Bulletin of the Bureau of School Service, Vol VIII, Nos. 3 and 4. Lexington, Kentucky: College of Education, University of Kentucky, 1936. $0.50 each.

The Emergency Education Program in California. State Department of Education Bulletin No. 5. Sacramento, California: State Department of Education, 1936. Pp xii+68.

HILL, MARJORIE. *Training To Reason:* An Investigation into the Possibility of Training in Seeing Relations of Evidence. Australian Council for Educational Research Series, No. 44 Melbourne: Melbourne University Press, 1936. Pp. 72.

Occupations and Vocational Guidance: A Source List of Pamphlet Material. Compiled by Wilma Bennett. New York: H. W. Wilson Co., 1936 (second edition revised). Pp 124. $1.25.

Parents and the Automobile: A Symposium by Parents of Children in the Horace Mann Schools and Lincoln School. Edited by Elizabeth J Reisner, Harriet de Onis, and Thalia M. Stolper. New York. Teachers College, Columbia University, 1936. Pp. 64.

PETERS, CHARLES C *Abstracts of Studies in Education at the Pennsylvania State College,* Part VI. Penn State Studies in Education, No. 12. State College, Pennsylvania: School of Education, Pennsylvania State College, 1936. Pp. 66.

Psychology of Learning, General Methods of Teaching, and Supervision. Review of Educational Research, Vol. VI, No. 3. Washington: American Educational Research Association of the National Education Association, 1936. Pp. 277–352. $1.00.

Recent issues of the Office of Education:

Bulletin No. 9, 1935—*Public Education in the Philippine Islands* by Katherine M. Cook. Pp. 54.

Bulletin No. 10, 1935—*Public Education in Hawaii* by Katherine M. Cook. Pp. 56.

Bulletin No. 18-IV, 1936—*Youth . . . Vocational Guidance for Those Out of School* by Harry D. Kitson. Pp. 82.

Pamphlet No. 66 (1936)—*Per Capita Costs in City Schools, 1934–35* by Lula Mae Comstock. Pp. 22.

Vocational Education Bulletin No. 106, Trade and Industrial Series No. 30 (1935, revised)—*Stone Setting:* The Setting of Cut Stone Trim in Brick Buildings. Pp. x+126.

Vocational Education Bulletin No. 181, Home Economics Series No. 18 (1935)—*Space and Equipment for Homemaking Instruction:* A Guide to Location and Arrangement of Homemaking Departments. Pp. 154.

SEITZ, J. A. *Variability of Examination Results:* A Study of the Public Examinations in Victoria, 1922–1933. Australian Council for Educational Research Series, No. 43. Melbourne: Melbourne University Press, 1936. Pp. 56.

"State-adopted Contract Forms for the Employment of Teachers." Washington: Research Division of the National Education Association, 1936. Pp. 20 (mimeographed). $0.10

Suggestions for Developing Courses of Study in Literature for Secondary Schools. Pennsylvania Curriculum Studies, Bulletin 97. Harrisburg, Pennsylvania: State Department of Public Instruction, 1935. Pp. [illegible]

Teachers' Contracts: With Special Reference to Adverse Conditions of Employment. Committee on Tenure of the National Education Association. Washington: National Education Association, 1936. Pp. 42. $0.1[illegible]

TIDBITTS, F. LYMAN. *Teaching Analysis Form for Superintendents, Supervisors, and Apprentice Teachers.* Oklahoma City, Oklahoma: Oklahoma City University Press, 1936. $0.15.

WRIGHT, WENDELL WILLIAM. *Reading Readiness: A Prognostic Study.* Bulletin of the School of Education, Indiana University, Vol. XII, No. [illegible]. Bloomington, Indiana: Bureau of Co-operative Research, School of Education, Indiana University, 1936. Pp. 46. $0.50.

MISCELLANEOUS PUBLICATIONS

A Dictionary of American English: On Historical Principles. Part I, A—Baggage. Edited by Sir William Craigie, with the collaboration of James R. Hulbert, George Watson, Mitford M. Mathews, and Allen Walker Read. Chicago: University of Chicago Press, 1936. Pp. x+116. $4.00.

REILLY, WILLIAM J. *How To Find and Follow Your Career:* Straight Thinking on Career Planning. New York: Harper & Bros., 1936. Pp. xiv+162. $1.75.

SADLER, WILLIAM S. *Theory and Practice of Psychiatry.* St. Louis, Missouri: C. V. Mosby Co., 1936. Pp. xxii+1232. $10.00.

THE ELEMENTARY
SCHOOL JOURNAL

VOLUME XXXVII NOVEMBER 1936 NUMBER 3

Educational News and Editorial Comment

TRENDS IN THE DEVELOPMENT OF THE LOCAL UNIT OF SCHOOL ADMINISTRATION

Two recently published numbers of the Bulletin of the Bureau of School Service of the College of Education of the University of Kentucky (*The Local Unit for School Administration in the United States*, Parts I and II) present the most complete and accurate analysis of the structure of local school administration that has yet appeared. The first bulletin contains a somewhat detailed description of the basic and intermediate local units of school administration now employed in the different states as well as an analysis of these units in terms of area, school population, teaching staff, and the like. In the second volume the characteristics of the various types of systems of local control are described in greater detail, and general trends in the development of local school administration are clearly indicated.

The authors of the study have made a more detailed and accurate classification of local school units than the classification customarily employed. They point out, correctly, that a distinction must be drawn between units which are basic and units which are merely intermediate and that in most states the organization involves both types. The following eight-division classification of state systems of local administration is clearly more discriminating than any hitherto proposed: (1) the district-township-county system, (2) the district-supervisory union system, (3) the district-county system, (4) the township-county system, (5) the town-supervisory union system, (6) the semi-county system, (7) the county system, and (8) the evolving state system.

Mean Number of Local Units for School Administration in Eight Type Situations

Classification	Number of States	Mean Number of Basic Units	Mean Number of Intermediate Units	Mean Number of Units of Both Types
District-township-county system	2	9,413	1,445	10,858
District-supervisory union system	1	8,436	308	8,744
District-county system	24	3,872	72	3,944
Township-county system	4	1,449	60	1,509
Town supervisory union system	6	266	49	315
Semi-county system	9	159		159
County system	4	48		48
Evolving state system	1	15		15
Mean		2,580	109	2,689

At the time the data were gathered in 1934-35, there were 129,047 local units of one kind or another being employed in the administration of the schools of the nation. Of the total number, 5,223 were serving the function of intermediate units, while the remaining 123,824 were being used as basic or primary units. In thirty-five states the system of local administration involved the use of both types of districts, while in thirteen states the basic unit alone was employed. The number of separate administrative areas within a state ranged from 13,874 in Illinois to only 15 in Delaware. The accompanying table compares the eight types of state systems of local administration with respect to the mean number of basic and intermediate units in each.

The general trends in the development of the local unit for school administration are summarized in part as follows:

An analysis of existing conditions and practices, such as the foregoing, brings into relief the more important trends in the reorganization of the local unit for school administration. In Part I of the study it was pointed out that in the past efforts to eliminate the worst features of the traditional district system have taken two general directions. One approach to the problem has been the complete or nearly complete elimination of the smaller district as a unit for school administration and the substitution of a larger area, usually an existing civil unit such as the New England town, the middle western township, or the county. The second approach is the practice of modifying the existing district through consolidation and of interposing between the rural district and the state a secondary or intermediate unit of supervision. However, there are cases in which a combination of these two principles has dominated practice. The New England states, for example, have followed the first approach in substituting the town for the district as the basic unit of school administration. On the other hand, these same states have adopted the second general plan in the formation of the supervisory union and in the initial movement for the consolidation of town districts which is taking place in New Hampshire. At the same time certain states, which on casual observation appear to be following the second plan, are found on closer study to be approaching the point where the district will be eliminated and the county made the basic rather than the intermediate unit. The best examples of this type of development are probably Ohio, Texas, and Mississippi.

Within and in addition to these two broad tendencies, more specific trends are observable. In the following paragraphs the more significant of these are described and illustrated.

The modification of the traditional system.—The gradual reduction in the number of school districts and the corresponding increase in their size through consolidation is perhaps the most easily recognized trend in those states classified as district-township-county and district-county systems. Gradually, districts are merged, and one-teacher schools are replaced by two-, three-, and four-teacher schools. As the consolidation program moves forward, these in turn give way to the completely graded elementary school. The rapid growth of towns and cities at the expense of rural areas, of course, has accentuated this movement. Progress in this direction is slow, but the gains, nevertheless, are significant. When the data presented in Part I of this study were compared with those in the bulletin issued in 1933 by the United States Office of Education (Walter S. Deffenbaugh and Timon Covert, *School Administrative Units*. Pamphlet No. 34, 1933), it was found that the total number of districts in the states described as district-township-county and district-county systems had decreased over the two- or three-year period from 119,355 to 116,410, or approximately 2.5 per cent. Nineteen of the twenty-six states had fewer districts when the later study was made, the decreases in some cases being as much as 10 per cent; one state had the same number of districts; and six reported slightly larger numbers than were shown in the earlier study.

The superimposed high-school unit.—A second trend, evident only in those states employing the traditional or modified district as the basic unit, is the development of the superimposed high-school district. This unit, which usually covers the area served by several elementary districts, has made its appearance as the result of the popularization of secondary education. In order to provide a high-school population in rural areas large enough to insure an effective secondary program, it has been found necessary, where radical reorganizations have not been feasible, to make the unit of administration larger than is required for a satisfactory elementary school. This has tended in several states to produce a dual administration for the twelve grade school and in some instances a dual system of taxation. Illinois and California, perhaps, offer the best illustrations of this practice. In the former state approximately 40 per cent of the high schools are operated in superimposed high school districts. These township and community high school units are controlled by boards of education separate and distinct from those responsible for the underlying elementary districts, although some articulation is accomplished between the elementary school district and the high-school unit by electing one member to both boards of education. This growing tendency to provide for the separate control and separate support of the secondary school is meritorious in that it encourages larger, more economical, and more effective high schools, and to some extent guarantees elementary-school support against the inroads usually made by the high school when the entire program is administered as a twelve grade unit. On the other hand, there can be little doubt that it seriously menaces the unity of the twelve year school and aggravates the problem of articulation which is vexing enough under any circumstances. While complete data on the number and character of these superimposed high-school districts are not available, it appears that this unit of administration has now made its appearance in sixteen states.

The intermediate unit.—The general character of the intermediate unit for school administration has been considered in some detail in the preceding pages and in the first division of this study. In summary, it may be said that the practice of interposing a secondary unit of administration between the basic unit and the state appears to be a trend of considerable importance. Twenty-five states that employ the district as a basic unit are using the county in this way, and it is similarly employed in three states in which the township is the primary unit. In general, the purpose seems to be to provide a reasonable degree of financial control and of educational supervision through the medium of a semi-professional county superintendent. Gradually, more and more authority is being taken from the trustees of the basic district and placed in the hands of the county superintendent or the county board of education, where this body has made its appearance. Whether this trend will eventuate in the complete elimination of the primary district and the employment of the county in its place, or whether the dual system will be maintained with a clear division of power between the local district or the township on the one hand and the county on the other, cannot now be said. Whatever the particular form of organization, it seems almost certain that responsibility for teacher appointment and educational supervision will gradually pass into the hands of the county superintendent. . . . .

The elimination of the small unit.—Though the use of the intermediate unit seems at present to be the most common method for correcting or alleviating the faults of the traditional district system or any system involving a small basic unit, the earlier method of eliminating the unsatisfactory unit and substituting a larger civil area is still practiced.

As late as 1933 West Virginia abandoned a system in which the magisterial district was the principal unit of administration and established a complete county-unit organization. This change reduced the number of administrative areas from 450 to 55 and increased their average size from about 53 to 437 square miles each. The next few years probably will see similar changes in certain district-county systems which even now operate in a fashion not greatly different from the method of the semi-county organization. . . . .

Centralization of authority in the state.—One of the most significant developments in school control is the gradual centralization of administrative and supervisory authority in the state department of education or in some other agency of state government. . . . .

The elimination of the independent district.—Previously, it has been shown that an important characteristic of the township-county and semi-county systems is the operation of a relatively large number of special village and city districts. These independent districts were legalized originally in order that progressive village and urban communities might go forward more rapidly than the conservative character of the surrounding rural districts would permit. Now, however, the trend is definitely in the direction of their elimination. The inequalities in tax burdens and in educational opportunities resulting from the separation of these districts from the larger county or township unit constitute the principal argument against them, particularly when their boundaries have been gerrymandered in order to extend the tax base. Loss of community interest and the decrease in wealth in the small village [have] sometimes made it difficult to provide a school of a quality equal to that provided by the county or township district, even though the tax rate is higher. Furthermore, the small independent district interferes with a comprehensive program of consolidation, makes for duplication of services, and, as a consequence, results in waste and inefficiency.

FEDERAL AID TO VOCATIONAL EDUCATION

A recent issue of the *New York Sun* carried the following statement.

President Roosevelt named today a committee of eighteen—headed by Dr. Floyd Reeves of the University of Chicago—to study the need for an "expanded program" of federal aid for vocational education.

The action followed the President's moves to formulate legislation on crop insurance, more efficient use of "dust bowl" natural resources, and farm tenant aid.

Serving with Dr. Reeves, professor of education at Chicago, will be representatives of four government departments and the Tennessee Valley Authority and private authorities from the fields of labor, agriculture, home economics, industry, education, and vocational rehabilitation.

The study is an outgrowth of passage by the last Congress of the bill of Senator George, Democrat, of Georgia, authorizing an increase over the next few years of more than $10,000,000 in federal contributions to the states for vocational education. The act will become operative next July 1, but Congress will have to appropriate the additional funds first.

In a letter to the committee membership, the President pointed out that when he signed the bill he indicated a belief that before it took effect the "whole subject should be reviewed by a disinterested group."

"It is my thought," he said, "that such a group should study the experience under the existing program of federal aid for vocational education, the relation of such training to general education and to prevailing economic and social conditions, and the extent of the need for an expanded program.

"I take pleasure in inviting you to accept membership on a committee to make such studies and to develop recommendations which will be available to the Congress and to the Executive. The services of the several federal departments will be available to this committee. Traveling expenses incurred by members in attending committee meetings will be met by the government."

He added he hoped each person named would find it possible to "assist in the development of a sound basis for a program of vocational education which will be of maximum benefit to those affected."

THE NEW EDUCATION ACT IN ENGLAND

Soon after the war, indeed even during the war, the English people became aware of the fact that children who completed the elementary school at the age of fourteen were ill prepared to make their way in an increasingly complex industrial society. Consequently, for more than a decade English statesmen and educational leaders have been seeking means of establishing a system of post-primary or junior secondary schools which would be free and compulsory for all children between the ages of eleven and fifteen. The *Report of the Consultative Committee on the Education of the Adolescent*, popularly known as the Hadow report, recommended in 1926 that all children be transferred at the age of eleven to junior secondary schools and that the leaving age be increased to fifteen. The recommendations of the Hadow report met with almost universal approval, and bills were introduced in parliament in 1930 to carry them into effect. As the bills were drafted, however, they were bitterly opposed by some of the denominational or non-provided school interests, notably the Catholics and the Nonconformists. It was contended that the non-provided denominational school interests would not be in a position to maintain junior secondary schools unless the government aided them in constructing the necessary school buildings. The government was not ready to undertake additional subsidies to the private-school interests, and it was unable to force through its measures in face of their opposition. In the meantime, local education authorities began to carry out the new type of organization on their own initiative, with the result that at present more than half the pupils in England between the ages of eleven and fourteen are enrolled in junior secondary schools.

An act recently passed by Parliament will make possible the complete reorganization of post-primary education along the lines laid down in the Hadow report. The leaving age is raised to fifteen except in the case of those children who have been issued work certificates by the local authorities. The act also makes provision whereby the local education authorities may make grants to the non-provided schools for the purpose of enlarging or remodeling their school plants, the local authorities to provide not less than half nor more than three-fourths of the cost involved. Thus, the non-provided school interests will be in a position to put into effect the essential features of the Hadow Plan, and it is entirely likely that within a few years practically all the youth of England between the ages of eleven and fifteen will be in attendance at free junior secondary schools.

THE EDUCATIONAL PROGRAM IN MEXICO

The following statement describing the new educational system that is emerging in Mexico is quoted from the *Christian Science Monitor*.

> Revolutionary Mexico today has more teachers than soldiers—53,000 of them, and each by official definition an "agent of social improvement in all its aspects."
>
> Herein is seen the key that will unlock the door of the future south of the Rio Grande, for practically every one of the nineteen other Latin republics is finding in Mexico the pattern for its educational system Even Venezuela, for

half a century under iron dictatorships, and Chile, so long the kingdom of nitrate, are sending teachers to study this broadest effort of the Mexican reform program, and Paraguay has asked for teachers from Mexico to inaugurate a similar movement there.

"We are not afraid of ideas." Professor Gabriel Lucio, sub-secretary of the department of education, told this correspondent when he was asked to explain some of the phases of the program which its critics declare are more concerned with the field of political change than with literacy for the nation.

"The government wants the people to have more knowledge of social conditions in the world and is encouraging Mexican writers to explore these topics for any instrumentality that will establish a more equitable economic system here," he said. . . . .

Professor Lucio, one of the distinctly new generation group which the Mexican executive has gathered around him and which places the government here today in the hands of young men, did not mince words in describing the thing going forward.

"At present Mexico's system of government is more capitalistic than socialistic," he said, "but we have instituted socialistic education to prepare the people for the future.

"The program is of importance to this objective, because the evolution of the new régime depends upon the wide assimilation of the ideas of collectivization. In the preparation of the masses, therefore, we are undertaking to make every individual a worker and every worker a collective worker.

"That is why every urban school has shops and every rural school fields; why the action of the schools, especially in the rural centers, extends beyond the school itself to the life of the adults. The people must be adapted to conditions and made efficient with a sense of co-operative action. In short, our program is to prepare the masses first, and then establish the system.

"The government considers the religious question of secondary importance to the economic problem," he said. "The department is committed to foster a scientific interpretation of history. If the church considers this persecution, that is the church's business; we do not combat the church directly. Meanwhile, a continuous and persistent effort by the teachers has been able to reduce the tendency to fanaticism in the country."

The terms of the program, Professor Lucio continued, made clear why the teacher in Mexico today was classified as the "apostle of enlightenment" rather than pedagogue. Twenty educational missions are now afoot through the states, semi-portable libraries are being set up opposite factory entrances, the entire educational system of the nation is scheduled to come under federal control next year, and a plan for a national university to complete the socialistic pattern of education is before the president. The school allotment of 50,000,000 pesos brings education second in the budget only to the army.

Just as change is being wrought in the budgetary allotments, so is it at work in the military branches, according to Professor Lucio, who holds that "the

Mexican army today is a revolutionary army and the thought of its soldiers is socialistic."

No longer does the axiom that the way to power here is by violence apply; no longer is the rank of general a synonym for corruption and excesses. New proof of the change, Professor Lucio observed, was had on the "Day of the Soldier" this year, when the *soldados* were guests of the workers.

THE UPWARD TREND OF TEACHER PREPARATION IN PENNSYLVANIA

The following statement is quoted from a recent issue of *Public Education*, Monthly Bulletin of the Department of Public Instruction of Pennsylvania.

Figures compiled by Dr. Henry Klonower, in charge of the Teacher Education Division of the Department of Public Instruction, clearly indicate a distinct trend in school districts in Pennsylvania to employ teachers in the elementary field who have completed four years of post-secondary education. While the certification regulations do not require this amount of preparation, the trend shows plainly that teachers with the more extended preparation are more likely to secure positions and that thousands of teachers who have completed but two years of preparation are returning to colleges and universities for additional professional education. In 1935 there were only 3,902 college graduates in the elementary field, while in 1936 there were 5,772 college graduates specifically prepared for the elementary field engaged in teaching these grades.

PUPIL INTERESTS AS A BASIS OF CURRICULUM CONSTRUCTION

In attempts to escape the formalism of the recitation, there has been in recent years a tendency, particularly noticeable in some quarters, to take refuge in the interests of pupils and to make these interests the basic factor in the construction of the curriculum. The assumption seems to be that the so-called "interests" of children are not ephemeral, that children in reality know what their interests are, and that teachers can discover these interests with relative ease and accuracy. Various attempts to determine and evaluate pupil interests have, to be sure, commonly produced contradictory results but without seriously shaking confidence in the value of pupil interest as an approach to the construction of the curriculum or the organization of the activities that go on in school. Those who believe that the interest of the individual is at the center of the educative process and who have been organizing courses of study on what they believe to be the interests of pupils cannot, however, fail to be disturbed by the findings of a recent investigation carried out by Professor Frederick L. Fitzpatrick, of Teachers College, Columbia University. Professor Fitzpatrick does not challenge the doctrine of interest per se, but he does make it clear that no adequate techniques for the discovery and measurement of interests have as yet been devised.

The investigation was conducted to discover the validity of the testimony of individuals when asked to indicate the items of greatest interest in a diverse list. An attempt was made "to determine whether or not such testimony is consistent, valid, and generally dependable, and to consider possible conditioning factors in the situation." The items were all in the field of science and were submitted in different forms and at different time intervals to subjects ranging from fifth-grade pupils to graduate students. Some of the major conclusions of the investigation are quoted as follows:

> The first finding concerns the degree to which individuals and groups are consistent in their responses to identical items after a three months interval . . . . The degree of consistency, expressed in percentages obtained for 190 cases, was studied. These cases were unselected except to the extent that schools act as selective agencies. The grade placement of the various subjects ranged from the fifth grade to the graduate college.
>
> *In general, the results show a considerable shifting of testimony in the case of the average individual,* even though he was dealing with identical groups of items. This changing of testimony was fully as characteristic of graduate students (science major) as it was of fifth-grade pupils. Men and boys appeared to be just as likely to change their testimony as women and girls. The general shifting of testimony for the groups as a whole was to the extent of about 40 per cent. This would not seem to suggest that pupil testimony as to "interests" in this field is a very substantial basic structure upon which to construct a course of study. The results raise grave doubts regarding the validity of similar testimony in any field until it has been studied by means of a repetition technique.
>
> One obvious fact emerges from a study of the data. It is that, given the conditions of this experiment, a group of unselected subjects may be expected to show great individual differences in the degree to which their testimony is consistent after a three-months interval. One individual . . . . scored in January, 1936, 97.0 per cent of the items he had scored in October, 1935. *Comparable percentages for other individuals* ranged all the way down to 30.7 per cent.
>
> These facts suggest various possibilities. There is, first of all, the possibility that an individual may undergo an honest change of "interest" during a three months period and that this change may be of considerable magnitude. There

is also the suggestion that all students are not avidly "interested" in educational problems. This latter suggestion is rather painful to contemplate, for have not many educators assumed that students giving testimony along similar lines have done so to the best of their mental abilities? Nevertheless, the foregoing results indicate that many responses are in the nature of ill-considered judgments.

The last statement is best attested by the responses of individuals, at fifteen-minute intervals, to items having the same or related meanings. . . . . The findings in this case show a lamentable lack of consistency, even in the case of graduate students. A group of the latter, for example, testified that they were interested in "diet," and fifteen minutes later about half of them failed to testify that they were interested in "foods." Similarly, another group testified that they were interested in "oceans," and after fifteen minutes some 85 per cent of them failed to signify an interest in "seas." Similar examples could be given in imposing numbers.

Various explanations might be made of the facts represented in these data. The possibility that many individuals do not make studied responses has already been suggested. The reader will at once see an additional possibility: that even many graduate students do not fully recognize a larger number of relationships, or related meanings, when these are expressed in words.

Briefly, then, there is definite indication that a given subject may respond positively to one word or word combination, and shortly thereafter may respond negatively to another word or word combination which has essentially the same subject-matter implications. . . . .

In any event, the fact remains that in this investigation the students (and pupils) showed no greater consistency of testimony on related items at fifteen-minute intervals than they exhibited in the case of identical items after a three-months interval. Some might argue that a valid change of "interests" entered into this situation It seems unlikely that this is the only factor, or even the most important factor, in such small space of elapsed time. The practical conclusion is that a course of study based upon such a survey of pupil "interests" would not be valid after fifteen minutes of elapsed time. . . . .

Why, then, should anyone assume that pupil testimony is carefully considered before it is given, that it mirrors exactly the psychological complex from which it comes, and that it can be interpreted accurately by another individual? We have seen that pupil testimony such as the foregoing is changeable and inconsistent This fact should be a warning that other types of testimony may well be taken *cum grano salis*. For example, we are left with the suspicion that verbal testimony, other forms of written testimony, and the indirect evidence gleaned from the observation of pupil conduct may also be subject to many conditioning factors, the identity of some of these factors not even being suspected at the present time.

Quite apart from any consideration of the facts brought out in this study, there are two questions concerning pupil testimony about their "interests" which have every appearance of being most difficult to answer satisfactorily. The first question is how a given pupil may predict what will or will not "interest" him in a field concerning which he knows little or nothing. The second question is how the same pupil can foretell whether or not a certain teacher can and will direct the consideration of a specific topic into "interesting" channels. With these questions in the background, it may be suggested that too often superficial devices, such as a questionnaire measurement of pupil "interests," have been considered the principal, if not the sole, requisite for the formulation of an adequate course of study.

In conclusion, it may be permissible to "say a good word" for a *science of education*. In this story of testimony we have reviewed the spectacle of an education which recommends pupil "interests" as an important basis for constructing courses of study, but largely fails to provide objective techniques for the discovery and analysis of those "interests." Should we continue to place our reliance in superficial techniques and analyses which probably do not achieve the hoped-for results?

In the absence of adequate techniques for the discovery and measurement of "interests," would it not be a more scientific approach to the study of education if we frankly admitted the probable inadequacies of our knowledge in this field? Should we not give further thought to the proposition stated by Thorndike and Gates, that ". . . . the child's own interest is not a perfect guide in the choice of subjects any more than it is in the selection of foods. . . . ." Is it not better, for the present at least, to place much of the burden of decision concerning the course of study upon the specialist in a given field—the person who through long training has become familiar with at least most of the materials in that field, and who through teaching experience is in a position to form some estimate of pupil response to various phases of the subject matter?

THE ART OF SCHOOL LEADERSHIP IN THE COMMUNITY

The Chicago Principals' Club has published a monograph entitled *Public Relations of the Principal*. The general purpose of the monograph is indicated in the following quotation from the Foreword.

> The principalship involves the practice of an art in human relationships as well as the application of the theories and methods of the science of education Our textbooks on pedagogy are replete with details of the science and art of teaching and with advice on administrative routine but are lacking in helpful hints that deal with the daily human contacts that make up so much of a principal's work. There have been classes in training prospective principals in matters of office routine, in the preparation of reports, requisitions, and other important communications to the central office, but, in Chicago, we have been left to our own devices in establishing right relations with our schools, our teachers, and our communities. Theoretically we know that our relations should

be courteous, considerate, and sympathetic, but, with emphasis largely centered upon administration within the school, we minimize these intangible elements which help or hinder the effectiveness of our leadership. Perhaps the experience of other school principals, as embodied in this pamphlet, will help us to learn more quickly how to handle specific situations in dealing with school personnel and with local agencies that have to do directly with the education of our children.

The monograph is devoted to a discussion of the following major topics: "Day by Day Contacts with Parents and Community," "Parent-Teacher Associations," "Co-operation of School and Church," "Community Councils," "Co-operation with Teacher Organizations," "Relations with Political Groups and Individuals," and "Organizations of Help to the Schools." Under the first of these major topics, such minor topics as the following are discussed: "The School Newspaper," "Personnel Problems," "Board of Health," "Accidents," "Advertisements," "Public Libraries," "The Police and the Courts," and "Pupil Responsibilities." The discussion of each topic is clear, pointed, and practical. The monograph should prove particularly valuable to principals in Chicago, and a careful reading of it would profit principals everywhere.

CHILD-LABOR LEGISLATION IN 1936

The following statement is quoted from a recent issue of *State Government*.

> Five of the nine state legislatures meeting in regular session in 1936 passed child-labor laws which in every case were stricter than their predecessors. A sixth—Louisiana—created a Department of Labor, placing under its direction the labor functions formerly administered by five different agencies
>
> Massachusetts broadened its restrictions on night work for women to include girls under twenty-one and to all "manufacturing and mechanical establishments" An investigation to determine in which occupations the minimum age of employables should be raised from sixteen to eighteen was authorized.
>
> New York's legislators decreed that minors under eighteen must not be employed as workers or entertainers on premises used for the retail sale of alcoholic beverages They also empowered city boards of education to require school attendance of unemployed children from sixteen to seventeen, thus redressing an omission from a 1934 law.
>
> The Rhode Island general assembly made it unlawful to hire a child under sixteen to work in any manufacturing or mechanical establishment and restricted the employment of those under sixteen in business or mercantile estab-

lishments to a forty-hour week and an eight-hour day within the hours of 6 A.M. to 6 P.M. Also, neither minors under eighteen nor women may labor more than forty-eight hours a week in manufacturing, mechanical, or mercantile establishments; a nine-hour day is specified, but this may be stretched to nine and three-fourths hours if a five-day week goes with it.

Rhode Island's legislators also made sixteen the compulsory school attendance age, eliminating the former exception allowing fifteen year olds to work if regularly employed. They prohibited the director of labor from granting permission for industrial home work in cases of employees under sixteen, created a Division of Women and Children in the Department of Labor, provided for an investigation, to be followed by directory and mandatory orders to establish minimum standards for minors under twenty-one working in trade and industry; and ratified a six-state minimum-wage compact.

South Carolina has a new Department of Labor as a result of the 1936 session. It also declared that the forty-hour week with an eight-hour day would prevail for all workers in South Carolina cotton, rayon, silk, and woolen mills "when and if the state of Georgia and the state of North Carolina shall have adopted similar bills."

Virginia's General Assembly raised the minimum age for employment in certain hazardous occupations from sixteen to eighteen years.

DIGESTS OF RESEARCH IN READING AND LANGUAGE

The fourth annual research bulletin of the National Conference on Research in Elementary School English is entitled *Research Problems in Reading in the Elementary School*. Under the editorship of Professor D. D. Durrell, of the School of Education, Boston University, it reviews the present status of research in reading with special reference to "Reading Readiness," "Primary Reading Problems," and "Middle Grade Reading Problems." There is a bibliography of 112 items. Critical reviews by Professors Paul McKee, William S. Gray, and Arthur I. Gates are included. The price is fifty cents.

Also published this year is the first committee report, entitled *Bibliography of Unpublished Studies in Elementary School English, 1925–1934*. This publication gives a summarization and critical evaluation of recent important studies in elementary school language not otherwise available. The price is twenty-five cents.

Copies of these publications may be obtained by addressing the secretary of the National Conference on Research in Elementary School English, Mr. C. C. Certain, Box 67, North End Station, Detroit, Michigan.

WHO'S WHO IN THIS ISSUE

HELENA PETROVITCH NÉGOSCH, principal of Saticoy Street Elementary School, North Hollywood, California. HARL R. DOUGLASS, professor of secondary education at the University of Minnesota. INA CAMPBELL, counselor at Phillips Junior High School, Minneapolis, Minnesota. JOHN A. HOCKETT, lecturer in education at the University of California. DETA P. NEELEY, graduate student at the University of California. C. DEWITT BONEY, principal of the Nassau School, East Orange, New Jersey. G. T. BUSWELL, professor of educational psychology at the University of Chicago. W W. McSPADDEN, instructor in natural science at Teachers College, Columbia University ANNE E. PIERCE, head of the Department of Music in the Experimental Schools and assistant professor of music at the University of Iowa. W. G. WHITFORD, associate professor of art education at the University of Chicago. HOMER J SMITH, professor of industrial education at the University of Minnesota. BEULAH I. COON, agent for studies and research in home-economics education in the United States Office of Education. EVANGELINE COLBURN, teacher-librarian in the library of the University Elementary School at the University of Chicago. C. H. McCLOY, research professor of anthropometry and physical education at the University of Iowa.

SOME PROBLEMS OF MODERN ELEMENTARY EDUCATION

HELENA PETROVITCH NIÉGOSCH
Saticoy Street Elementary School, North Hollywood, California

If the achieving of new objectives meant only the solution of the problems toward which the achievement aimed, the field of elementary education might have reason to congratulate itself on the widespread acceptance of the modern philosophies. But to regard the new era merely as the successful overthrow of old difficulties is to view only half the picture. The old troubles may have been weeded out, but what of their successors, the new obstacles that sprout up alongside the main issues? As soon as the first jubilation of success is over, there loom new difficulties awaiting recognition.

The problems of the new education are infinitely more complex than those of the old because the new education itself is a complexity of movements. The neatness of the old type of change has been succeeded by the simultaneous growth of divergent elements. Conflicting concepts have developed side by side; vigorous social and economic forces have been felt in fields formerly immune from their influence; and each of these factors has eventually become intermingled with all the others in the present educational scene. Some of the ideas that have been most active in shaping current elementary education and the difficulties to which these ideas give rise will be discussed in the following paragraphs.

FOUR ACTIVE CONCEPTS OF ELEMENTARY EDUCATION

Among the many theories that have particularly affected elementary education are four concepts which, while occurring in many forms, may be labeled for ease of reference as follows: (1) the concept of the child-centered learning situation, which may be defined as a learning situation in which the major motivation is supplied by the children, either as a group or as individuals; (2) the concept of the material-from-life curriculum, which may be defined as a curriculum or arrangement of learning experiences in which the data are selected from current life and are closely related to the out-of-school experiences of the child; (3) the concept of the development of the total child, which refers to the educational aim of considering all the aspects of the child's personality; and (4) the concept of the development of social consciousness, which denotes the recognition of the fact that human beings live in social groups in which individuals have rights, privileges, and duties and in which social relationships are constantly changing.

It will be seen that any of these concepts, taken singly, is enough to precipitate great changes in educational procedure and evaluation. Taken together, their combined effects tend to cause confusion. It is obvious, however, that two of these ideas are essentially means and that two are ends, and the failure to recognize this distinction is one reason for some of the confusion in the classroom. The child-centered learning situation and the material-from-life curriculum are primarily means, and the idea of the total child and the concept of social consciousness are primarily ends The two concepts that function as means arose first; they are better known than the two ends and thus have often been taken as ends. In actuality, the concept of taking account of the child's nature in planning his school experiences and the concept of using material which is derived from the present-day living environment of the child do not imply objectives or goals. The idea of the development of the total child, which aims at the growth of a unified, integrated personality, and the idea of leading the child to realize something of his social responsibilities and privileges are, on the other hand, aims or goals. Thus, total, complete, personal development and free, devoted social service may be considered as ends in the program of education, and the means by which these ends are to be reached are experiences close to current life, motivated by the active wishes of the child. This program obviously is not easy, and attempts to execute it in the classroom reveal many difficulties.

Each of the concepts contains problems within itself. The school planned around the child's interests, for example, may lead the child to be self-centered. The selection of material which is meaningful for one child may be utterly meaningless to another. The search for "integrated personality" may overlook the specific details of which integration is the resultant condition. Social development may omit individual consideration. Moreover, the four concepts are in many respects antagonistic to one another. Child-centered situations may be obstacles to the social development of the group, and curricular material from life may not be included in strictly child-planned activities. The idea of social development may lead to undue toleration of the activities of others and thus be inimical to the best interests of all the group. Since the progressive schoolroom is the scene of the simultaneous operation of all these ideas, it is likely that the problems involved may arise at any moment and that the different personalities of the children will create further complications. Specific analysis of classroom situations reveals some of these danger spots, and this article will present problems actually observed by the writer.

PROBLEMS ARISING IN THE CHILD-CENTERED LEARNING SITUATION

The fertile idea of child-centered learning has been one of the most vitalizing forces of modern education. During the last fifteen years it has completely revolutionized the elementary school and has transformed the static, formal classroom into a veritable hive of busy, happy activity. The close relation between building an environment around the child's interests as determined by his development and the ultimate goal of the best social living, broadly interpreted, leads to no conflict. It is the misinterpretation of the idea, or the limitation of its scope, that causes problems such as the following to appear.

The pupils may become too individualistic. This danger, like all the others mentioned, appears in connection with some children more than with others. Many pupils, in fact, are capable of being the center of an active, self-motivated program of work without unduly magnifying their own importance. Others interpret the situation exclusively with regard to their own prominence and thus fail to achieve other desirable ends. Inasmuch as the development of personality is one valid aim of education, activities should evoke individualistic responses; it is only when the individual considers his own personal development without relation to the personalities of others, or when the individual has no further goal toward which the activities of his developed personality are directed, that the situation becomes undesirable. The question of environment and past experience is of great significance in interpreting the problem because of the fact that many children, especially the bright pupils, may have occupied the center of the stage in the home for many years without any consideration of the question of ultimate goal. On the other hand, the child of domineering parents may develop an exaggerated ego at school in compensation for the home environment. The emphasis, therefore, of the "child-centeredness" of a situation, as contrasted with its need for external guidance, is a subtle matter, one to which constant attention must be given in order that the dangers of misinterpretation may be avoided

Another possible problem is that the pupils may develop antisocial tendencies and find difficulty in co-operating with one another. Any class may contain children who have always magnified the importance of their own work, and these pupils may prefer to continue working as individuals rather than to join a group. A program that is strictly child-initiated and child-motivated can scarcely avoid this problem, and frequently a great deal of teacher guidance is required to prevent the occurrence of the situation.

Another danger in the child-centered learning situation is that the most dominant child in the class may assume a central position and become a standard of measurement for the rest of the pupils. Where selfish, aggressive pupils claim more than their share of the teacher's time and attention, the more neglected pupils may be led to emulate these leaders, and even the teacher may accept the prominent children as types against which the rest of the pupils are measured. The problem is closely related to the question of how far the leader should enjoy the solitariness of his position and how far he should consider the co-operation of others, contributing possibly to the development of "rivals." The subordination of the idea of *leadership* and the substitution of that of *service* tends to help the ultra-aggressive pupil to establish definite goals of value to the entire group. Pupils may contribute to the danger expressed in this problem either by being unduly aggressive and assuming the type of antisocial leadership that bids all others be followers or by acquiescing in the assumption of such leadership. Either attitude indicates a lack of socially developed purpose and an absence of sincere loyalty to the class.

Another problem in the situation planned by the child is that the environment is likely to become too limited in scope, that preparation for later activities is likely to be overlooked, and that the value of the culture of the past may be ignored. The wishes and the experience of children are not usually sufficiently wide to guarantee a broad range of activities, and one activity may merely lead to another of a similar nature instead of widening the field. There is no likelihood that, if the pupils choose all their activities, they will gain those habits and skills necessary for further and more advanced experiences. The "tool subjects" fall into this class, and again the necessity of teacher guidance becomes apparent.

A further problem is the absence of democratic attitude that may result from a situation in which some pupils are always in the center of the stage and others always looking on. The size of the classroom, the amount of available material, the number of work benches, and other considerations limit the free activity of many pupils and make initiative for all, at the same time and in the same way, an impossibility. A socialized group will decide methods of sharing equally the educational advantages of the room, but this arrangement may not be initiated by the pupils without external suggestion.

Another danger is that children widely divergent from the group in talents and interests may fail to be included in class activities. The teacher may find it necessary to devise ways of using the talent of neglected pupils. As the talents and the interests of such pupils are not always apparent (nothing having occurred to evoke their expression), this danger of neglect is particularly insidious.

PROBLEMS ARISING IN THE MATERIAL-FROM-LIFE CURRICULUM

The idea of securing curricular materials from the living environment of the pupils arose in the effort to counteract the undue emphasis on vicarious experiences provided by the older courses of study. Coincident with the acceptance of the fact that nothing is educative which does not give rise to reaction and change came the realization that only a stimulus fraught with meaning can evoke an active response. Material closely related to the child's life was regarded as the only possibility for evoking complete, active response because it is the only kind of material the purpose of which is vital to the child. In the practical application of this valuable concept, however, many difficulties at once became apparent, difficulties largely connected with the restrictiveness of the idea.

For example, to decide just when the material might be considered to be connected with life was discovered to be a problem It is relatively easy to define the approximate limits of a small child's environment and interests, but, by the time the upper elementary grades are reached, the "life" from which the materials are to be taken has expanded both in amount and in complexity. Life has become a different thing for different pupils, because of innate and environmental factors. Problems arise the solution of which depends on many factors other than the closeness or the remoteness of content. The danger of neglecting the comprehension of the bright child, for example, is as great as the danger of going beyond the capacity of the child of lesser endowment.

Another possible danger of the material-from-life curriculum is that there may be an overemphasis on the immediate environment which may lead to a neglect of all except the superficial value of the activities undertaken. Acquaintance with community enterprises, neighborhood industries, local historical associations, and neighboring geographical features may result solely in specific factual knowledge, with little or no relation to general principles or wider interests. Social and emotional values may at all times be subordinated to intellectual values, and a mechanical interpretation of the neighborhood may result. Thus, the curriculum may become too narrow, the culture of the past may be omitted, future possibilities may be ignored, and idealistic interpretations may be neglected. Experiences purportedly based on life are likely to omit a large part of life because of the tendency to include only the objective, easily recognizable, materialistic items. The study of that which exists tends to obscure the value of that which might exist and that which should exist, and this emphasis leads to a static type of thought opposed to progress.

Another problem, closely related to the danger of restrictiveness in the program taken from life, is the danger that generalized thinking will never be achieved. Activities based exclusively on the particular events of the present frequently omit the opportunity for generalization and thus fail to supply tools that might lead to further endeavor. With bright children, especially, there is need for a constant widening of the environment.

The possibility that immediacy of reward will be unduly stressed is implied in the foregoing problems. As the recognition of deferred value is neglected in deriving the materials of the curriculum strictly from the environment of the present, so the emphasis falls on those elements whose reward is immediate and whose results are obvious. Thus, the entire question of permanent social values is likely to be ignored.

PROBLEMS ARISING IN THE APPLICATION OF THE CONCEPT OF THE TOTAL CHILD

The concept of the "total child," or of "pupil integration," calls attention to the fact that not all of an individual is measurable and that, when all tests have been considered, there still remain elements of significance which may alter the effect of all the rest. For this reason teachers in the field have welcomed the Gestalt psychology, realizing that they have always dealt with whole children and total situations. In their haste to accept the new philosophies, however, educators have not always taken care that the new ideas were sufficiently well grafted on the old. For this reason various problems have arisen.

In the first place, many of the known facts of child growth and development tend to be neglected under the plan of considering the "whole child" only. Emphasis, for example, may be laid on the process of combining subject matter without due care that the activities united are suited to the intellectual or developmental level of the children concerned. Moreover, the view of the ultimate goal that unites the activity in the mind of the teacher is often too distant to function as a stimulus to the pupils. This difficulty is observable even in child-selected units of work. The "term plan" and the "semester schedule" are largely guides for the teacher. Smaller items of work, which can be more quickly finished and the results of which can be more readily seen, are more suitable for children. The total child is considered when the teacher makes such adjustments in amount of time spent on work units as are required by the interests and the needs of the pupils.

Another problem is the failure to distinguish between the child and the subject matter and the tendency to assume that combining subjects guarantees pupil integration. Merely to initiate activities containing various types of subject matter has little or no relation to the development of a harmonious personality. A pupil becomes integrated when he devotes his entire energy and enthusiasm to a task because of its value to him. Integration of personality may, of course, follow experiences the data of which are derived from more than one field, but this result is not inevitable and integration continues to depend on other than mechanistic factors. In the purposefully motivated experiences of an activity program, combinations of subjects usually have a reason for being combined, and this purpose induces integrated reaction in the pupil.

A further problem connected with the application of the total-child concept is that there may be too much emphasis on individual work and individual growth, to the detriment of social experiences. To neglect social growth eventually restricts individual progress. Overemphasis on individualism should be counteracted by considering the social purposes for which the well-integrated person should exist.

Another problem lies in the absence of definite standards by which individual growth can be measured. The recognition of the significance of unmeasured elements of the personality operates to cause doubt about when the pupil is or is not doing his best. Perfection in the abstract is a vague goal, and the possibilities of rationalization and self-excuse are many. To lead the child to realize what his potentialities are, rather than to accept the easily attained, is an important adjunct to the aim of developing the total child

PROBLEMS CONNECTED WITH THE CONCEPT OF THE DEVELOPMENT OF SOCIAL CONSCIOUSNESS

Recent emphasis outside the school on the significance of social relationships has been reflected by a similar movement within the school. To induce pupils to realize their own social duties and privileges and to recognize the fact that society is in a state of constant change, determined by man himself, is one of the objectives of the new education. The new procedures of the classroom are devoted to the same end. The pupils undertake co-operative endeavors, and they learn not only how to bring their tasks to a successful conclusion but how to share experiences, how to help others, how to find personal satisfaction in the well-being of the group, and how to overcome selfish desires in the willingness to work for the happiness of all. The amount of guidance usually necessary to insure the smooth working of social ideals in the classroom might indicate the remoteness of the goal, but, as in other movements, momentum is gained after the first start is made. The problems to be faced in the cultivation and the maintenance of social ideals are usually somewhat like the descriptions in the following paragraphs.

Many pupils are likely to shirk their responsibilities and to leave them to other persons. This problem is likely to arise in any class because the wide divergence in the levels of social development will cause some pupils to take advantage of the "helpfulness" of others. It may be necessary frequently to point out that the best way of serving others is not to do their duties for them but to help them to become self-directing.

Another difficulty when social service is emphasized is that pupils may be satisfied with mediocre effort. Some pupils, becoming disgusted with the weak co-operation of others, may respond with a like superficial attitude. The sense of fairness and justice is weak or absent in some children, and definite attempts to interpret class ideals, as well as the initiation of some activities that will arouse the unquestioned loyalty of all the group, may be needed.

Closely allied with the low standards of co-operation among some of the pupils is the fact that achievement in many lines may be reduced in quality as soon as the emphasis is removed from individual competitive effort. The dictum, "Allow each child to compete with his own record," does not always inspire effort comparable with that evoked by competition with classmates. Care should be taken that proper recognition is given to achievement in order that growth in itself, irrespective of the attainments of others, may be made desirable.

Another difficulty in the socialized group is to be found in the inability of the pupils to evaluate attainment of any kind with the degree of flexibility needed by pupils of different mental endowment. Inadequate and destructive criticism may be detrimental to some pupils and may result in a general habit of looking for faults. The pupils of the elementary school usually do not possess sufficient tact or understanding of other children to know, without guidance, just when adverse comment might be a real discouragement, and they cannot realize how individual standards and requirements should vary.

Another problem is found in the danger that may arise in a situation where the social leaders are neither the intellectual leaders nor the pupils most industrious in pursuit of class interests. Prominent, self-centered pupils, unless guided, may give overt expression to some hidden disappointment or thwarting of their own by discounting the work of others. There is also the danger that in the complexity of an activity program contributions of real value and great effort may be passed by, unnoticed by the class, unless the teacher calls the attention of the pupils to them. Such an omission discourages the contributor in his attempts at self-expression.

When attempts are made to reform the traditional types of instruction by the application of the four concepts of the curriculum that have been discussed, new and serious difficulties arise. It is, therefore, highly important that the teacher be aware of the problems which are likely to be encountered and that she have a clear idea of the fundamental goals of her teaching.

FACTORS RELATED TO FAILURE IN A MINNEAPOLIS JUNIOR HIGH SCHOOL

HARL R. DOUGLASS
University of Minnesota
INA CAMPBELL
Phillips Junior High School, Minneapolis, Minnesota

An intensive investigation of thirty-seven pupils in a Minneapolis junior high school who were failing in two or more academic subjects furnishes some rather interesting data concerning the relations between certain factors and failure and indicates particularly a striking relation between failure and the socio-economic status of the home.

Twenty-three, or 62 per cent, of these failing pupils were boys; only 14, or 38 per cent, were girls—a significant sex difference. Again, the failures were congregated largely in the beginning semester of Grade VII and in Grade IX—a finding which suggests that there is something of a gap between Grades VI and VII and also between Grades VIII and IX; possibly that the ninth-grade instructional material has not undergone a great deal of adaptation but has been merely transferred from the first year of the four-year high school to the last year of the junior high school; or that there is a tendency for junior high school teachers to prevent poor pupils from going on to senior high schools by failing them in Grade IX.

Some differences between the groups are shown in Table I.

AGE, GRADE STATUS, AND ATTENDANCE

As compared with 102 typically distributed junior high school boys and girls who were passing in all subjects, the failure groups were distinctly older, the median age of the failure group being 15 months more than the median of the passing group, with but about 35 per cent of overlapping between the two distributions. The boys among the failures were about four months older than the girls, while the difference between the sexes for the average group was seven months.

The failing pupils were retarded a year on the average, while the normal group averaged "at age." Eleven of the failing pupils were retarded two years or more, while only four of the 102 passing children were retarded. None of the failing pupils was accelerated, but 22.5 per cent of the passing pupils were ahead of their grades.

TABLE I

COMPARISON OF 37 FAILING PUPILS AND 102 PUPILS PASSING IN ALL SUBJECTS IN A MINNEAPOLIS JUNIOR HIGH SCHOOL

	Failing Group	Normal Group
Chronological age (in years and months).		
Median of group	15-3	14-0
Median of girls	15-0	13-9
Median of boys	15-4	14-4
Mean number of years of retardation	1	0
Percentage of pupils accelerated for grade.	0	22.5
Percentage of pupils absent more than seven days	30	13
Median number of days of absence	13	1
Intelligence quotient:		
Median of group	99.2	101.3
Mean of group	97.5	102.0
Median of girls	92.0	101.1
Median of boys	103.0	101.8
Mental age (in years and months):		
Median of group	14-1	13-10
Mean of group	13-10	13-9
Median of girls	12-9	14-2
Median of boys	14-9	13-9

Whether cause or effect or co-effect, absence went with failure in this school. Only 13 per cent of the normal group, compared with 30 per cent of the failing pupils, were absent more than seven days. The median amount of absence of the failing group was thirteen days, compared with one day for the normal group.

INTELLIGENCE

A surprising revelation was made when it was discovered that, on the basis of scores in the Otis Self-administering Test of Mental Ability, there was no significant difference in the intelligence quotients of the two groups. However, a larger number of distinctly superior individuals (with intelligence quotients of over 110) were found in the normal group; more than 25 per cent of the pupils in the normal group were superior as compared with only one of the

37 failing pupils. The median intelligence quotient of the failing girls was smaller than that of the failing boys, while among the normal groups there was practically no difference between the sexes—a finding which adds another bit of evidence to that of other studies indicating that girls make more of their abilities than do boys. Still another interesting finding was the progression of the mean and the median intelligence quotient of the failing group by about three points from one grade to the next.

An analysis of the differences in mental age between the two groups revealed that the failing group had the higher mental age. Among the failing pupils the boys had a distinctly higher mental age than the girls, while among the normal pupils the girls were slightly superior in mental age. Grade differences were about one year and two months for the failing group; for the normal group there was eight months' difference in mental age between Grades VII and VIII and a difference of one year and one-half month between Grades VIII and IX—a finding similar to that in the case of intelligence.

SOCIO-ECONOMIC STATUS

In the differentiation of failing pupils from normal pupils, socio-economic status, as measured by the Sims score card, was of more importance than intelligence-test scores. The failing pupils came, in large proportions, from homes of the middle or the lower class, all but four of the thirty-seven came from homes ranking in the lower third among all the homes of Minneapolis junior high school pupils and not one from a home in the upper third. Every girl failure came from a home in the lowest fourth, though 10 per cent of the 23 boys came from homes above the lower quartile and three boys came from homes slightly above the median.

Of these thirty-seven failing pupils, twenty-seven came from homes with no telephones; thirty-one came from homes with no more than three magazines of any sort, seventeen of these from homes with no magazines; twenty-seven from homes with not more than twenty-five books of any sort; twenty-two did not have their own rooms at home; the fathers of only four pupils had gone to college and only one mother had attended college, although the state university is located in the city. Only nineteen of the fathers and nineteen of the mothers had attended high school. The magazines found most commonly in the homes were of the type of the *Saturday Evening Post*, *True Stories*, *Ladies' Home Journal*, and *Liberty*. Among the thirty-seven fathers there was not one professional man nor one owner or chief executive in any but petty business concerns. The large majority of the fathers would be classified as workers in the various skilled and semi-skilled trades.

ACHIEVEMENT-TEST SCORES

The differences in achievements, as measured by the Stanford Achievement Test, between the failing and the normal groups were surprisingly small, representing an average of only about one year. In literature and physiology the scores of the two groups were practically identical The greatest difference was in language usage, largely attributable to home environment. Large differences (about two years in achievement age) were also found in geography and in arithmetic computation. Considerable overlapping was found. That is, on all the tests some failing pupils exceeded some passing pupils; some failing pupils, in fact, surpassed the average of all the passing pupils. One failing seventh-grade pupil ranged above a passing seventh-grade pupil in the various tests by a margin in achievement age of three months in arithmetic reasoning to five years and three months in physiology and hygiene, with a total excess of approximately four years Similar cases in Grades VIII and IX, though of less striking nature, were also found.

SUMMARY

By way of summary it may be said that, as compared with normal passing pupils, failing pupils in Phillips Junior High School of Minneapolis are more than a year older, are a year more retarded, are absent more frequently by about two or three weeks a semester, are almost as bright on the average but include fewer superior pupils, and are slightly more mature in mental age. They come largely from homes of inferior economic status, in which there are few evidences of cultural interests or opportunities Their fathers are skilled laborers, and their mothers and fathers have had less schooling than the average. It is also noticeable that there are more failing boys than failing girls and that among the failing boys are distinctly larger proportions of children of average and superior ability and of children coming from homes of average socio-economic status.

A COMPARISON OF THE VOCABULARIES OF THIRTY-THREE PRIMERS

JOHN A. HOCKETT AND DETA P. NEELEY
University of California

THE IMPORTANCE OF PRIMER VOCABULARIES

In the past twenty years phenomenal advances have been made in the field of reading instruction. One significant development is the growing recognition of the importance of the vocabulary burden of reading materials, with consequent improvement in the character of the books produced for children. Scientific control of vocabulary is most important in the primary grades and especially so during the first half-year of reading. Gates, who has given a great deal of attention to the relation of vocabulary to reading difficulty, says, "The proper adjustment of the vocabulary burden and of the difficulty of reading materials to a pupil's capacity is of profound importance."[1] In another place Gates states that one of the most important characteristics of a course in reading is "an abundance of reading material in which the pupil is unhampered by difficulties in word recognition, so that the various habits essential to fluent, accurate, full, and enjoyable comprehension may be developed." As the result of experimental trial of materials of varying degrees of difficulty, this same investigator estimates that "in the primary grades there should be thirty to forty running words for each new word introduced" and that this amount of repetition should be provided through "abundant reading of senseful material, instead of by means of phonetic drills and other types of isolated word study."[2]

Investigators and teachers alike are convinced that children make more rapid progress and build better reading habits and attitudes if they can be provided from the beginning with much interesting material containing a desirable minimum of vocabulary difficulties.

---

[1] Arthur I. Gates, *Interest and Ability in Reading*, p. 9. New York: Macmillan Co., 1930.

[2] *Ibid.*, pp. 113-14.

It is important, then, to know the exact vocabulary burden of the various primers in common use. Such data are useful in selecting and using not only the first primer which the child reads but also the second, third, and subsequent books which he attempts. The second primer which the child reads may present more difficulty than the first if the overlapping of the vocabularies of the two books is slight.

Simplicity in reading material is the result of several factors. The stories and ideas should be within the experience of the child. The vocabulary should be familiar. Sentences should be simple and direct. The vocabulary burden should be light. Unfamiliar words should occur infrequently in relation to the total number of words. Several of these standards are rather satisfactorily met by the better-known primers of recent publication. There is, however, considerable variation in the vocabulary load and in the ratio of new words to the total amount of material.

An experienced teacher can estimate the interest appeal of a beginning reader and the background of experience necessary for the understanding of the stories by means of a thoughtful reading of the book or, more accurately perhaps, by using the book with a group of children. The relative difficulty of any book and the selection of the most appropriate books to follow the basic primer are most accurately revealed through careful analyses and comparisons of vocabularies. Because of the strategic importance of using materials of the proper difficulty with various groups of pupils, teachers need exact and complete information concerning the vocabularies of the various books.

FORMER STUDIES

Earlier studies have presented data on the vocabulary load of from ten to fifteen selected primers. One of the best known of these is that by Selke and Selke,[1] who found a total of 1,636 different words in the twelve primers that they analyzed. Only 38 words were common to all twelve books, while 783 words appeared in only one book. The number of different words in the separate books varied from 157 to 630.

---

[1] Erich Selke and G. A. Selke, "A Study of the Vocabularies of Beginning Books in Twelve Reading Methods," *Elementary School Journal*, XXII (June, 1922), 745–49.

A later study by one of the same authors[1] included twelve more recent primers. In these twelve books the total number of different words was reported to be 1,207; the number common to all, 52; and the number appearing in only one of the twelve books, 582. The range of vocabulary in individual books was from 171 to 594. This report is of slight value to the teacher, however, for the books are not identified by name.

Beck[2] presented in 1929 a brief and incomplete report of an analysis of eight primers which were published in 1926 and 1927. She did not state the rules followed in making the analysis. The present writers find considerable discrepancy in their results and those presented by Beck.

More recently Harring[3] reported an analysis of the vocabularies of fifteen primers Twelve hundred and sixty different words were found, 538 of which appeared in only one book and 34 in all fifteen books

Since the earlier studies included a limited number of primers, since the reports in most cases omit important data, and since many recently published books were not included in any previous analysis, the desirability of a current and more inclusive analysis suggested itself to the writers. We present, consequently, significant data regarding the vocabulary burden of thirty-three primers published between the dates of 1923 and 1935, inclusive.

PROCEDURES EMPLOYED

Each book was carefully read, page by page, and a tabulation was made of the number of times that each word was repeated. This analysis revealed the number of different words; the number of running words; and, by division, the average repetition, or the ratio of running words to different words. The list of words for each book was further analyzed to discover the number of words which were repeated specified numbers of times, and each list was compared with every other list to determine the number of words common to any two books.

---

[1] Erich Selke, "A Comparative Study of the Vocabularies of Twelve Beginning Books in Reading," *Journal of Educational Research*, XXII (December, 1930), 369–74.

[2] Mae Miller Beck, "The Vocabulary of First Readers," *Peabody Journal of Education*, VI (January, 1929), 224–27.

[3] Sydney Harring, "What Primer Shall I Use Next?" *Elementary School Journal*, XXXII (November, 1931), 207–13.

The rules followed in tabulating were those most commonly employed in studies of primary books All variants of word forms, except those formed by the addition of the single *s*, were counted as separate words. Thus, "sleep" and "sleeps" were counted as the same word, but "slept," "sleeping," and "sleepy" were tabulated as separate words. The possessive form made by adding apostrophe and *s* was considered a different word. A hyphenated word was considered one word unless the parts were so simple that a child would probably recognize them separately, when it was not considered a new word but was tabulated under its separate parts. All material in each book which would normally be read by children was included in the analysis. The title-page, the table of contents, the preface, and the concluding word list were omitted. Comprehension exercises, poems, and titles of stories were included

Arbitrary decisions regarding the inclusion or the exclusion of material were necessary in a few instances. The revised edition of *The New Path to Reading: Primer* contains twenty-two pages of material entitled "My Word Primer," which is not, apparently, an integral part of the book. This section of phonetic exercises would probably not be used unless the teacher were employing the book as a basic primer and were following the phonetic methods recommended by the author. Even under these conditions many of the words might be used in pronunciation exercises without being made a part of the child's reading vocabulary. For these reasons the 911 words in this "Word Primer" are not included in the data presented.

The primer of *The Bolenius Readers* includes on pages 109–22 a series of games or exercises designed to follow the various stories of the book. These exercises were judged to be an integral part of the content of the reader and are included in the analysis.

The primer of *The Unit-Activity Reading Series* contains eleven pages which introduce the different sections of the book At the bottom of each of these pages is a legend in small type, apparently intended for the teacher alone, including such words as "recreation" and "transportation " These legends have been omitted in making the analyses.

The primer of *The Work-Play Books*, when employed as a basic book, is especially designed to be used in connection with an accompanying preparatory book. The data presented on the total running words and average repetition are obviously too small when it is so used, since these figures are more than doubled through use of the preparatory book. Supplementary exercises are available for many of the other primers. When used, they add to the total amount of reading done by the child and to the number of times he encounters the various words.

It is not possible to carry out detailed analyses involving such large numbers of words without the inclusion of some errors. A great deal of time and effort, however, was devoted to checking and rechecking in each of the steps. Two of the books were given a second independent reading. Comparison of the two results in each case revealed remarkable agreement. In several instances the results were compared with data supplied by the publishers of the books. All discrepancies were noted, and the work was rechecked in order to verify or revise the results. In the preparation of the summaries and tables each operation has been rechecked. While recognizing the probability of slight errors, the writers nevertheless have considerable confidence that the data presented may be depended on for all practical purposes.

Several investigators have shown that many words recur in readers with different meanings. Fennell,[1] for example, studied this problem. She showed that from nineteen to thirty-three words recurred with different meanings in the five primers which she studied. It would seem that, insofar as these different meanings were already familiar to the children, they should present little if any difficulty. The present investigation presents no data on this point.

The primers in the following series of readers were analyzed in this study.

1. Margaret L. White and Alice Hanthorn, *Boys and Girls at Work and Play*. Do and Learn Readers. Chicago: American Book Co., 1930.
2. Henry Suzzallo, George E. Freeland, Katherine L. McLaughlin, and Ada M. Skinner, *Fact and Story Readers*. Chicago: American Book Co., 1930.

---

[1] Ethel L. Fennell, "Recurring Words and Their Relation to Difficulties in Comprehension," *Elementary School Journal*, XXIX (September, 1928), 42–53.

3. Clara B. Baker and Edna D. Baker, *Bobbs-Merrill Readers*. Indianapolis, Indiana: Bobbs-Merrill Co., 1923.

4. Clara B. Baker, Mary Maud Reed, and Edna Dean Baker, *Friends for Every Day*. The Curriculum Readers. Indianapolis, Indiana: Bobbs-Merrill Co., 1934.

5. Clara B. Baker and Edna D. Baker, *The Pet Pony and Other Stories*. True Story Series. Indianapolis, Indiana: Bobbs-Merrill Co., 1928.

6. B. R. Buckingham and Bertha H. Buckingham, *Play Days*. The Children's Bookshelf. Boston: Ginn & Co., 1934.

7. Mary E. Pennell and Alice M. Cusack, *Friends*. The Children's Own Readers. Boston: Ginn & Co., 1929.

8. Anna Dorothea Cordts, *The New Path to Reading: Primer*. Boston: Ginn & Co., 1929.

9. Anna Dorothea Cordts, *The New Path to Reading: My Second Primer*. Boston: Ginn & Co., 1930.

10. Anna Dorothea Cordts, *The New Path to Reading*. Boston: Ginn & Co., 1935 (revised).

11. Eva A. Smedley and Martha C. Olsen, *The New Primer*. The Smedley and Olsen Series. Chicago: Hall & McCreary Co., 1926.

12. Emma Miller Bolenius, assisted by Mary McSkimmon and Florence E. Bamberger, *Tom and Betty*. The Bolenius Readers. Boston: Houghton Mifflin Co., 1930.

13. Mathilde C. Gecks, Charles E. Skinner, and John W. Withers, *Playfellows*. Story and Study Readers. Richmond, Virginia: Johnson Publishing Co, 1928.

14. Herman Dressel, M. Madilene Veverka, and May Robbins, *The Laidlaw Readers*. Chicago: Laidlaw Bros., 1928

15. Isobel Davidson and Charles J. Anderson, *The Lincoln Readers*. Chicago: Laurel Book Co., 1926.

16. Edith Hope Ringer and Lou Chase Downie, *Home*. Citizenship Readers. Philadelphia: J. B. Lippincott Co., 1930.

17. Frank N. Freeman, Grace E. Storm, Eleanor M. Johnson, and W C. French, *Child-Story Readers* Chicago: Lyons & Carnahan, 1927.

18. Mable Guinnip La Rue, *The F-U-N Book*. New York: Macmillan Co., 1923.

19. Arthur I. Gates and Miriam Blanton Huber, *Peter and Peggy*. The Work-Play Books. New York: Macmillan Co. 1930.

20. Katherine E. Dopp, May Pitts, and S. C. Garrison, *Little Friends at School*. Happy Road to Reading Chicago. Rand McNally & Co., 1935.

21. William H. Elson and Lura E. Runkel, *Child-Library Readers*. The Elson Extension Series. Chicago: Scott, Foresman & Co, 1923.

22. William H. Elson and Lura E. Runkel, *The Elson Readers*. Chicago: Scott, Foresman & Co., 1927.

23. William H. Elson, Lura E. Runkel, and William S. Gray, *The Elson Basic Readers*. Life-Reading Program. Chicago: Scott, Foresman & Co., 1930.

24. W. E. Grady, Paul Klapper, and Jane C. Gifford, *Pets and Play Times*. Childhood Readers. New York: Charles Scribner's Sons, 1932.

25. John M. Manly and Sarah E. Griswold, *Good Reading*. New York: Charles Scribner's Sons, 1926.

26. Cora M. Martin, *At the Farm*. Real Life Readers. New York: Charles Scribner's Sons, 1930.

27. Bessie Blackstone Coleman, Willis L. Uhl, and James Fleming Hosic, *The Pathway to Reading*. Newark, New Jersey: Silver, Burdett & Co., 1925.

28. Nila Banton Smith, *At Home and Away*. The Unit-Activity Reading Series. Newark, New Jersey: Silver, Burdett & Co., 1935.

29. Clarence R. Stone, Anne Lotter Stone, assisted by Ida Vandergaw, *Tom, Jip, and Jane*. The Webster Readers. St. Louis, Missouri: Webster Publishing Co., 1932.

30. Marjorie Hardy, *Wag and Puff*. The Child's Own Way Series. Chicago: Wheeler Publishing Co., 1926

31. Ethel Maltby Gehres, *Everyday Life Primer*. Philadelphia: John C. Winston Co., 1935.

32. William Dodge Lewis and Ethel Maltby Gehres, *Pets and Playmates*. The New Silent Readers. Philadelphia: John C. Winston Co., 1931

33. Sidney G. Firman and Ethel Maltby Gehres, *The New Winston Readers*. Philadelphia: John C. Winston Co., 1928.

VOCABULARY BURDEN OF THE BOOKS

In Table I are summarized the significant data regarding the vocabularies of the thirty-three books. The second column presents the total number of words in each book. The third column presents the number of different words. In the fourth column is given the average amount of repetition, or the number of running words to each new word. The next eight columns reveal for each book the number of words which are used once, twice, three times, four times, five times, six to nine times, ten to nineteen times, and twenty times or more, respectively. The last two columns show the percentage of words in each book used five times or less and the percentage used ten times or more. It will be seen that some of the books not only contain a high average repetition but have few words which occur five times or less and a large proportion of words which appear ten times or more. In other books the average repetition is much less, and a considerable proportion of the words are repeated only a few times.

TABLE I

BASIC VOCABULARY FACTS FOR EACH OF THIRTY-THREE PRIMERS

Name of Primer	Total Number of Words	Number of Different Words	Average Repetition	Number of Words Used with Frequency of—								Percentage of Words Used—	
				1	2	3	4	5	6–9	10–19	20 and Up	Five Times or Less	Ten Times or More
1. Do and Learn	4,105	316	13.0	31	43	23	29	23	60	57	50	47	34
2 Fact and Story .	5,162	279	18.5	19	14	23	16	16	48	68	75	32	51
3. Bobbs-Merrill. .	5,458	196	27.8	3	8	6	11	12	24	57	75	20	67
4 Curriculum .	4,456	175	25.5	2	7	7	8	10	31	44	66	19	63
5 True Story	7,177	325	22.1	34	20	17	22	15	50	71	96	33	51
6. Children's Bookshelf	9,280	295	31.5	0	0	0	0	29	70	94	102	10	66
7 Children's Own	5,409	366	14.8	21	35	35	32	20	72	76	75	39	41
8 New Path, Primer	3,260	221	14.8	26	10	24	17	10	40	45	49	39	43
9. New Path, Second Primer	5,094	396	12.9	93	49	42	28	16	45	58	65	58	31
10. New Path, Revised	6,581	263	25.0	3	1	2	6	21	63	69	98	13	63
11. Smedley and Olsen	4,315	288	15.0	22	26	25	37	20	47	49	62	45	39
12. Bolenius . .	6,960	312	22.3	5	3	8	5	21	57	107	106	13	68
13 Story and Study	4,963	380	13.1	51	35	39	31	24	59	73	68	47	37
14. Laidlaw	5,861	275	21.3	36	23	18	12	12	36	54	84	37	50
15. Lincoln . .	6,205	405	15.3	52	57	41	22	28	49	79	77	49	39
16. Citizenship	4,413	398	11.1	82	39	34	24	24	55	84	56	51	35
17 Child-Story	3,929	296	13.3	46	29	30	13	17	57	51	53	46	35
18 F-U-N Book	4,258	462	9.2	130	53	51	33	18	67	56	54	62	24
19. Work-Play .	4,163	276	15.1	0	60	34	14	13	47	59	49	44	39
20 Happy Road	4,566	213	21.4	2	2	8	15	17	42	51	76	21	60
21. Child-Library	9,122	392	23.3	37	20	19	27	25	64	78	122	33	51
22 Elson	6,835	309	22.1	8	14	26	17	22	50	79	93	28	56
23 Elson Basic	5,322	219	24.3	0	1	4	12	11	45	61	85	13	67
24. Childhood	3,316	287	11.6	18	13	16	39	22	82	62	35	38	34
25 Good Reading	5,523	480	11.5	105	25	19	41	24	79	90	97	45	39
26. Real Life	4,032	243	16.6	6	6	13	16	14	67	66	55	23	50
27. Pathway to Reading	5,600	274	20.4	7	9	16	14	20	45	76	87	24	59
28 Unit-Activity	4,835	246	19.7	0	1	0	0	47	70	69	59	20	52
29 Webster	4,521	219	20.6	14	3	6	6	16	44	65	65	21	59
30. Child's Own Way	5,199	413	12.6	64	68	42	34	32	62	49	62	58	27
31. Everyday Life	3,901	231	16.9	3	7	23	12	23	40	71	52	29	53
32 New Silent	4,781	273	17.5	5	2	5	10	33	79	80	59	20	51
33 New Winston	5,474	284	19.3	11	3	4	6	34	64	89	73	20	57

OVERLAPPING OF VOCABULARIES AND DESIRABLE PRIMER SEQUENCE

Table II shows the number of words common to every possible pair of books Reading across the top line, one notes that the primers of the *Do and Learn Readers* and of the *Fact and Story Readers* have

TABLE II

NUMBER OF WORDS COMMON TO ANY TWO OF THIRTY-THREE PRIMERS

Name of Primer	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
1. Do and Learn		153	96	100	155	186	181	105	149	131	151	163	173	166	182	181	164	186	164	146	181	154	148	167	183	137	150	134	138	194	135	154	151
2. Fact and Story			102	98	150	147	145	100	137	116	133	145	156	130	164	152	136	172	143	119	149	132	128	147	161	100	142	117	133	165	118	132	140
3. Bobbs-Merrill				80	153	102	98	71	107	80	102	110	109	104	133	114	92	134	101	88	116	113	99	94	124	81	95	87	85	114	82	96	114
4. Curriculum					105	94	90	73	94	80	89	98	115	88	123	107	91	105	95	83	102	96	93	96	110	74	93	88	91	102	77	93	97
5. True Story						159	164	108	169	127	145	171	184	166	204	174	149	197	167	127	187	172	159	167	179	135	162	124	142	187	132	168	167
6. Children's Bookshelf							174	117	159	118	150	131	182	162	191	172	145	199	160	129	172	163	138	170	199	140	151	134	147	191	126	154	161
7. Children's Own								111	144	139	150	167	183	158	196	197	149	200	155	141	202	167	153	155	199	135	149	137	142	193	133	173	157
8. New Path, Primer									199	193	97	102	102	105	123	115	89	122	95	89	109	108	96	96	114	94	96	87	92	126	79	99	100
9. New Path, Second Primer										209	138	145	161	145	193	166	130	189	142	115	163	153	127	155	168	136	136	114	128	176	118	132	139
10. New Path, Revised											109	111	118	117	146	131	118	139	110	103	127	108	113	125	136	104	111	109	101	143	93	119	112
11. Smedley and Olsen												132	165	151	174	164	135	179	151	115	172	158	138	130	189	106	144	113	117	174	126	141	150
12. Bolenius													168	145	183	170	133	171	150	127	179	153	124	150	172	122	147	127	137	185	124	149	155
13. Story and Study														167	204	201	164	196	185	140	196	180	156	175	115	153	171	137	165	208	145	173	172
14. Laidlaw															188	170	149	179	166	130	184	157	143	156	182	131	145	142	132	180	123	146	173
15. Lincoln																201	173	202	186	151	238	188	161	187	224	144	186	145	164	215	139	177	194
16. Citizenship																	156	209	162	134	202	172	150	179	215	141	155	146	134	196	132	161	163
17. Child-Story																		166	153	112	150	141	136	147	176	124	137	132	134	181	114	135	141
18. F-U-N Book																			175	136	238	203	163	169	222	129	181	157	145	229	149	177	194
19. Work-Play																				137	180	155	138	168	176	132	152	140	143	179	129	154	169
20. Happy Road																					143	120	120	132	138	106	124	111	114	148	115	128	122
21. Child-Library																						268	172	174	219	147	173	149	151	210	142	178	177
22. Elson																							168	146	102	131	167	134	136	188	132	154	150
23. Elson Basic																								139	161	121	140	117	130	163	124	133	144
24. Childhood																									165	130	141	130	141	178	133	151	100
25. Good Reading																										140	173	150	145	236	144	173	180
26. Real Life																											129	110	122	157	117	127	134
27. Pathway to Reading																												114	136	177	117	145	146
28. Unit-Activity																													128	156	117	132	122
29. Webster																														159	112	137	136
30. Child's Own Way																															160	180	193
31. Everyday Life																																131	129
32. New Silent																																	146
33. New Winston																																	

153 words in common, while the primers of the *Do and Learn Readers* and of the *Bobbs-Merrill Readers* have 96 words in common. One hundred words are common to *Do and Learn Readers* and *The Curriculum Readers*, 155 to *Do and Learn Readers* and *True Story Series*, and similarly for the others. From this table it is possible to select the books which have the largest number of words in common or, if it is desired, those which have the fewest in common.

Those primers which have the largest vocabularies tend to have the largest number of words in common with others. Certain additional data are required if one wishes to select the particular primer which can be read with the least vocabulary difficulties following any given basic book. The number of new words encountered in the second book not previously met in the first book is possibly the best single criterion. Another valuable measure is the ratio of running words to new words in the second book. These data can be secured rather easily from the figures presented in Tables I and II.

To illustrate the nature and value of such evidence, we present in Tables III and IV the data for two widely used series. In Table III it is assumed that the primer of *The Elson Basic Readers* is the first book to be read. It is designated as the basic reader. The primer of *The Curriculum Readers* is listed second because this primer introduces the smallest number of words in addition to those in *The Elson Basic Readers*. Each of the other primers follows in rank order determined by the number of new words added to those already encountered in the basic book. In Table IV similar data are presented on the assumption that *The Work-Play* primer is the first or basic book.

Ideally, we should present thirty-three such tables, with each book in turn considered as basic. Since limitations of space prevent such a complete report, it is recommended that teachers who are interested make a comparable table for the books available in any particular school. The following description of Tables III and IV explains the method of developing such a table. In Tables III and IV the second column presents the number of different words in each primer. In the third column is given the number of words common to each book and the basic book. Subtracting the number in the third column from the number in the second column gives the number of words in each book that are not in the basic book, which is presented in the fourth column. The number of words in

TABLE III

VOCABULARY DIFFICULTY OF EACH PRIMER WHEN USED AFTER THE PRIMER OF "THE ELSON BASIC READERS"

Name of Primer	Number of Different Words in Primer	Number of Words in Common with Basic Book	Number of New Words Added	Number of Basic Words Dropped	Ratio of Running Words to New Words
Elson Basic	219	..	.....	..	
Curriculum	175	93	82	126	51
Webster	219	130	89	89	51
Happy Road	213	120	93	99	49
Bobbs-Merrill	196	99	97	120	56
Everyday Life	231	124	107	95	36
Real Life	243	121	122	98	33
New Path, Primer	221	96	125	123	20
Unit-Activity	246	117	129	102	37
Laidlaw	275	143	132	76	44
Pathway to Reading	274	140	134	79	42
Work-Play	276	138	138	81	30
New Winston	284	144	140	75	30
New Silent	273	133	140	86	34
Elson	309	168	141	51	48
Childhood	287	139	148	80	22
Smedley and Olsen	288	138	150	81	20
New Path, Revised	263	113	150	106	43
Fact and Story	279	128	151	91	33
Children's Bookshelf	295	138	157	81	50
Child-Story	296	136	160	83	25
True Story	325	159	166	60	33
Do and Learn	316	148	168	71	24
Bolenius	312	124	188	95	37
Children's Own	366	153	213	66	25
Child-Library	392	172	220	47	31
Story and Study	380	156	224	63	22
Lincoln	405	161	244	58	25
Citizenship	398	150	248	69	18
Child's Own Way	413	163	250	56	21
New Path, Second Primer	396	127	269	92	10
F-U-N Book	462	163	299	56	14
Good Reading	480	161	319	58	17

the basic book which are not repeated in each of the other books, given in the fifth column, is found by subtracting the figures in the third column from the number of different words in the basic book. Dividing the number of running words in each book (secured from Table I) by the "Number of New Words Added" yields the ratio at which new words are encountered in any book (it is assumed that all words met in the basic book are known).

TABLE IV

VOCABULARY DIFFICULTY OF EACH PRIMER WHEN USED AFTER THE PRIMER OF "THE WORK-PLAY BOOKS"

Name of Primer	Number of Different Words in Primer	Number of Words in Common with Basic Book	Number of New Words Added	Number of Basic Words Dropped	Ratio of Running Words to New Words
Work-Play	276	.	..	. .	... ...
Webster	219	143	76	133	59
Happy Road	213	137	76	139	60
Curriculum	175	95	80	181	56
Elson Basic	219	138	81	138	66
Bobbs-Merrill	196	101	95	175	57
Everyday Life	231	129	102	147	38
Unit-Activity	246	140	106	136	46
Laidlaw	275	166	109	110	54
Real Life	243	132	111	144	36
New Winston	284	169	115	107	48
Childhood	287	168	119	108	28
New Silent	273	154	119	122	40
Pathway to Reading	274	152	122	124	46
New Path, Primer	221	95	126	181	26
Children's Bookshelf	295	160	135	116	69
Fact and Story	279	143	136	133	38
Smedley and Olsen	288	151	137	125	31
Child-Story	296	153	143	123	27
Do and Learn	316	164	152	112	27
New Path, Revised	263	110	153	166	43
Elson	309	155	154	121	44
True Story	325	167	158	109	45
Bolenius	312	150	162	126	43
Story and Study	380	185	195	91	25
Children's Own	366	155	211	121	26
Child-Library	392	180	212	96	43
Lincoln	405	186	219	90	28
Child's Own Way	413	179	234	97	22
Citizenship	398	162	236	114	19
New Path, Second Primer	396	142	254	134	20
F-U-N Book	462	175	287	101	15
Good Reading	480	176	304	100	18

SUMMARY

This analysis of the vocabularies of 33 recent primers includes a total of 174,076 words, the combined vocabularies of the books. The range is from 3,260 in *The New Path to Reading: Primer*, to 9,280 words in *The Children's Bookshelf*, with an average of 5,275 and a median of 5,094 running words.

The number of different words varies from 175 in *The Curriculum Readers* to 480 in *Good Reading*. Four primers contain more than 400 different words; two contain less than 200. The average vocabulary burden is 303 words, and the median is 287. The average of the 16 books published between 1923 and 1929 is 335.4, while the average of the 17 books copyrighted between 1930 and 1935 is 273.0 words. The total number of different words in all 33 primers is 1,713. Of these, 681 (40 per cent) appear in only one book, and 1,077 (63 per cent) in three books or fewer. Twenty-five words are common to all 33 books, while 63 are common to 30 or more of the books.

The average repetition varies from 9.2 in *The F-U-N Book* to 31.5 in *The Children's Bookshelf*. The average of all is 18.2. The books published before 1930 have an average repetition of 17.2, while those published in the past six years repeat each word 19.1 times on the average.

In *The F-U-N Book* 62 per cent of the words appear five times or less, while in *The Children's Bookshelf* only 10 per cent of the vocabulary is used less than six times. The average for all books, in this respect, is 33 per cent; for those published from 1923 to 1929 the average is 39 per cent, while for the later books it is 28 per cent.

Sixty-eight per cent of the words in *The Bolenius Readers* appear ten times or more, in contrast to *The F-U-N Book*, which repeats only 24 per cent of its words more than nine times. The average for all books is 48 per cent; the average for those published earlier, 45 per cent; and for the later books, 52 per cent.

THE DISPOSITION OF A GROUP OF SLOW FIRST-GRADE READERS

C. DEWITT BONEY
Nassau School, East Orange, New Jersey

The necessity of dealing with the poor readers received through transfer to the primary grades and the 10 or 15 per cent of the pupils who annually fail to learn to read in Grade I caused the staff of the Nassau School to formulate a program of reading which would accommodate both groups without interrupting the progress of the average and the superior pupils. The plan called for giving every child in Grades I, II, and III an opportunity to read before experiencing failure. It was felt that promotion at the end of this period should depend on a child's ability to fit into an average fourth-grade group. An "average group" was to be allowed a spread of two years around the grade norm.

From the very nature of the plan it can be quickly seen that the instruction was primarily individualistic. This situation was characteristic of all grades except Grade I, where small groups were formed. Basal books were used, together with many other materials. Varied methods, consisting in word drill, phonics, and experience reading, were used at the discretion of the teacher. As a child became sufficiently independent to be able to read alone with some degree of ease, he was allowed to make selections under the guidance of the teacher and read at his own pace.

The pupils who in 1935–36 were in Grades IV and V had been taught in the primary grades according to this plan. Records of the growth of these pupils were made at the end of each year Progress was determined on the basis of achievement-test scores and the judgments of the teachers

Fourteen pupils who would normally have failed in Grade I because of inability to read were promoted and instructed at their own levels in Grades II and III. Table I shows that the greatest amount of progress made by these pupils during the first year was seven months, the lowest three months, and the average five months. In the second year six of these pupils progressed rapidly, three making more than a year's growth. This development was continued by these six pupils in Grade III, except in the case of one pupil who progressed only two months. The average growth in Grades II and III was 7.2 months and 7.1 months, respectively. At the end of Grade III seven of the fourteen pupils had made progress of two or more years, which was the minimum requirement for normal promotion. Three pupils who had not made two years' progress but who showed signs of growth at the end of the third year were promoted In Grade IV, Pupil 5 made nineteen months' growth, which was eight months more than was made in his first three years of schooling. Pupil 7 made eighteen months' growth, three months more than she had made in her first three years. Pupil 6 achieved thirteen months' growth in Grade IV, which was two months less than the

TABLE I

NUMBER OF MONTHS OF PROGRESS MADE IN READING BY FOURTEEN PUPILS WHO FAILED IN READING IN GRADE I AND WERE GIVEN INSTRUCTION AT THEIR OWN LEVELS IN GRADES II–IV

Pupil	Number of Months of Progress				Intelligence Quotient on Terman Revision of Binet-Simon Test
	Grade I	Grade II	Grade III	Grade IV	
1	7	13	8	12	103
2	5	3	12	18	92
3	5	10	10	10	92
4	7	3	10	10	113
5	4	4	3	19	103
6	7	4	4	13	93
7	3	7	5	18	102
8	7	17	10		106
9	6	16	10		115
10	5	9	15		108
11	4	2	4		104
12	4	2	2		96
13	6	9	2		101
14	4	2	4		100
Average	5.3	7.2	7.1	14.3	101.9

total growth he had made in the primary grades. The table shows that not one of the seven slow readers who were promoted to Grade IV made less than a full years' growth in that grade. The average growth score was 14.3 months.

When the experiment is evaluated against its original objective, a fair amount of success may be claimed for it. At the end of Grade III half of the possible first-grade failures had made sufficient progress to warrant normal promotion to Grade IV. Further, when the experiment was extended and three poor readers were allowed to make up their deficiency in Grade IV, 71 per cent of the probationary group warranted normal promotions. Before general conclusions can be reached, however, several problems need consideration.

How handicapped were these pupils in the various subjects because of their low reading ability? As soon as the more apt pupils began to read in Grade I, they made contributions to the science and the social-studies programs from their readings. The poor readers in Grade II obviously were not able to make contributions from reading, but this deficiency did not preclude all contributions to the group. One slow reader, for example, learned from his brother the use of a magnet and gave a demonstration on this subject to the class. Another slow reader secured from his father information on the anaconda in answer to a class problem. Teachers generally agree that there are many worth-while, firsthand experiences to be had in these grades. To argue that these children would have had richer experiences if they had been able to read is futile in the light of the fact that they were not able to read. When the subject matter learned is considered, there is no evidence in this investigation that, as far as science and social studies are concerned, slow readers were handicapped. Tests were given at the close of the science and the social-studies units in Grades III and IV, the results of which invariably showed that there was little or no relation between the subject matter learned and the ability to read. The explanation is found in the high degree to which these subjects were socialized Much time was given for children to report to each other on their findings There was a positive relation between a knowledge of the reading skills and ability to do the arithmetic in Grades III and IV While this relation was not high, it indicated that, so long as the present course of study is used, there is need for caution in promoting pupils to Grade IV.

The program must give consideration not only to the welfare of the slow pupils but also to the progress through the primary grades of the average and the superior readers. The experiment was started with the fundamental assumption that, as children became independent, the teacher could dismiss them from her constant care and thereby give more time to the backward pupils. An example will show how this principle worked. In the latter part of Grade I Pupil 18 was able to read a number of books. She was so much interested in reading that she read of her own volition at home and at school. Her habits were sufficiently good that she either worked out the words for herself or secured help. She was permitted by the teacher to read independently of the group, to select her books under the guidance of the teacher, and to share her stories with the teacher and members of the class several times a week. This pupil also read by this method in Grades II and III and was joined by others as they became independent. This plan differed from common practice in two respects: (1) Basal readers were not used with groups in Grades II and III. (2) The teacher in these grades gave more time to the slow readers than to the fast readers. Because of this departure from common practice, it is necessary to examine the progress of the children who read rapidly in Grade I.

In Table II are given the records of fourteen pupils who began to read rapidly in Grade I. It is interesting that there was no difference which could be considered significant in the ages and the health of this group and of the slow readers. Both groups had the same number of adenoids and tonsil cases and approximately the same number of absences. There was some difference between the two groups in intelligence.

The average growth made by the pupils who read rapidly was 13.5 months in Grade I and 10.6 months in Grade II. This drop was to be expected. Half the group possessed not more than normal intelligence; consequently, they could not be expected to continue their rapid progress in Grade II. The drop in Grade III to 8.8 months is cause for apprehension. In all probability some of this loss resulted from spending too much time with the weaker children.

The teachers of this grade were, no doubt, anxious to bring the weaker children up to the grade requirement and unconsciously did so at the expense of the better readers. If this supposition is accurate, correction can easily be made.

There is still another factor that must be considered. A study of Tables I and II shows that fluctuations were common. A child who made fourteen months' growth in the first year might make the same score the following year or cut his score in half. For example, Pupil 1 with an intelligence quotient of 103 made only seven months' progress in the first year but made the grade norm at the end of the fourth year, while Pupil 15, with the same intelligence quotient, had made only about the same amount of progress by the end of Grade IV although he had made fourteen months' progress during the first year. Close records have been kept of the progress of forty-two pupils from Grade I through Grades III and IV, and only two pupils have made approximately the same degree of growth in each year of their schooling. It is hardly possible that this fluctuating is

TABLE II

NUMBER OF MONTHS OF PROGRESS MADE IN READING BY FOURTEEN PUPILS WHO LEARNED RAPIDLY IN GRADE I

Pupil	Number of Months of Progress				Intelligence Quotient on Terman Revision of Binet-Simon Test
	Grade I	Grade II	Grade III	Grade IV	
15	14	7	9	10	103
16	15	13	10	10	114
17	14	14	7	10	127
18	15	5	10	10	100
19	12	16	8	4	96
20	18	12	11	9	113
21	12	11	7	8	98
22	11	10	9	13	105
23	18	8	12	. . . .	122
24	13	10	7		121
25	11	13	6		114
26	12	13	13	. . .	116
27	12	8	9	. .	101
28	12	8	5	.	106
Average	13.5	10.6	8.8	9.3	109.7

due to factors which could have been controlled but which were unobserved by the teacher. Indeed, the data in this study indicate that the slow progress made by some pupils in beginning reading, which is usually treated by retarding the pupil, is nothing more than normal fluctuation. A child who made five months' growth in Grade II was not considered a failure since she had made fifteen months' growth in Grade I, but another child who made only five months' growth in Grade I was considered a failure. The reason for this difference is that the first-grade child had no reserve to bolster his record after this initial faltering. Indeed, a reserve is not necessary to care for normal fluctuations in any grade save the first. A child ending Grade III one-half year behind is not considered a failure or necessarily a slow pupil. First-grade standards are much more stringent than those of other grades, with the result that failure has been much higher in this grade.

Another interesting phase of this study is that the cause of failure in reading at the end of Grade IV is not so directly associated with progress in Grade I as has been commonly assumed. Eight pupils were promoted to Grade V in June, 1935, who were one year or more below the average. Of this number, only three could have been considered possible failures in Grade I. Grade V inherited four repeaters who were still poor in spite of their repeating.

SUMMARY

The cause for slow or rapid growth in beginning reading is unknown, but it would appear that both are part of the growth of normal pupils. Fluctuations are much greater in the upper grades than in the lower grades. Fluctuations are treated less seriously in the upper grades because it has been thought that later progress was dependent on a child's "getting a good start" in Grade I.

If the slow and backward pupils are kept together and instructed at their own levels, a good proportion of the slow pupils will be able at the end of Grade III to fit into an average fourth-grade group. There appears to be nothing inherent in this plan that interrupts the progress through the primary grades of the average and the superior pupils. Further, it is not believed that backwardness in reading is a great deterrent to progress in the subjects in the primary grades.

SELECTED REFERENCES ON ELEMENTARY-SCHOOL INSTRUCTION

III. THE SUBJECT FIELDS—CONTINUED

This list of references is the third of a series relating to instruction at the elementary-school level The first list contains items on the curriculum, methods of teaching and study, and supervision. The second list contains items grouped under the following subject fields: reading, English, spelling, handwriting, the social sciences, and geography. The present list covers the remaining subject fields at the elementary-school level and is the last of the series of three dealing with elementary-school instruction.

ARITHMETIC[1]

G. T. BUSWELL

This list of references was selected from a total of ninety-two titles which were examined by the writer. The basis of selection was chiefly the presentation of new material of importance or critical discussions by competent authors. The bibliography covers the period from June, 1935, to the end of June, 1936. The annotations are descriptive rather than critical

509. ANDREWS, F EMERSON "The Dark Ages of Arithmetic," *Atlantic Monthly*, CLVI (July, 1935), 64–68.

An interesting historical article showing some methods of using arithmetic before the use of the Hindu-Arabic numerals. By contrast shows advantages of the present number system

510 BROWNELL, WILLIAM A, and CHAZAL, CHARLOTTE B "The Effects of Premature Drill in Third-Grade Arithmetic," *Journal of Educational Research*, XXIX (September, 1935), 17–28

Reports an experiment on the use of drill with sixty-three third-grade pupils Shows that drill makes little, if any, contribution to growth in quantitative thinking and that it often fails to modify previous habits. Also points out certain positive values of drill Includes bibliography

---

[1] See also Item 180 (Hildreth) in the list of selected references appearing in the April, 1936, number of the *Elementary School Journal*, Item 371 (Brueckner) in the May, 1936, number of the *School Review*, and Item 372 (Brueckner) in the September, 1936, number of the *Elementary School Journal*

511. BROWNELL, WILLIAM A., and WATSON, BRANTLEY. "The Comparative Worth of Two Diagnostic Techniques in Arithmetic," *Journal of Educational Research*, XXIX (May, 1936), 664–76.

The value of personal interviews as a diagnostic technique is compared with analysis of test papers and written records. Data cover addition of fractions by 245 pupils in Grade V. Shows superior results of personal-interview technique except for grosser types of diagnosis, when the two methods appeared to be equally effective.

512. CARMICHAEL, R. D. "Number and Clear Thinking," *Scientific Monthly*, XLI (December, 1935), 490–500.

A stimulating theoretical article with special bearing on non-computational arithmetic.

513. DEMAY, AMY J. "Arithmetic Meanings," *Childhood Education*, XI (June, 1935), 408–12.

A short but suggestive article showing concretely some ways to develop meanings in arithmetic in the lower grades.

514. DICKEY, JOHN W. "Why Invert the Divisor and Multiply?" *School Science and Mathematics*, XXXVI (March, 1936), 299–302.

Shows an inductive method of rationalizing the division of fractions.

515. GROSSNICKLE, FOSTER E. "Reliability of Diagnosis of Certain Types of Errors in Long Division with a One-Figure Divisor," *Journal of Experimental Education*, IV (September, 1935), 7–16.

The author gave tests to approximately two hundred pupils in each of Grades V–XV. Concludes that three responses are necessary for diagnostic purposes. Complete data are included in report.

516. GROSSNICKLE, FOSTER E. "To Check or Not To Check?" *Elementary School Journal*, XXXVI (September, 1935), 35–39.

Presents data from 404 pupils in Grade IV, showing the number and the types of errors in checking in long division. The author questions the value of checking at this grade level. A timely study.

517. GROSSNICKLE, FOSTER E. "Errors and Questionable Habits of Work in Long Division with a One-Figure Divisor," *Journal of Educational Research*, XXIX (January, 1936), 355–68.

Makes a detailed analysis of the habits of work of 453 children in Grades V–VIII. Gives frequency of appearance of each of the 57 habits listed.

518. GROSSNICKLE, FOSTER E. "The Incidence of Error in Division with a One-Figure Divisor When Short and Long Forms of Division Are Used," *Journal of Educational Research*, XXIX (March, 1936), 509–11.

A study supporting the use of the long form of division when the divisor is a one-figure number.

519. GUNDERSON, AGNES G. "Nature and Amount of Arithmetic in Readers for Grades I and II," *Elementary School Journal*, XXXVI (March, 1936), 527–40.

Analyzes ten sets of primary readers to find the arithmetic terms included Presents detailed results. Shows possibilities of closer integration between reading and arithmetic in primary grades.

520. GUNDLACH, W. B. "Ability of High School Pupils in Common Fractions," *Journal of Educational Research*, XXIX (January, 1936), 347–54.

Analyzes results of a diagnostic test in fractions given to between two and three hundred pupils in each grade from the seventh to the twelfth. Shows growth and variation from grade to grade.

521. MORTON, DAN M. "Number Forms and Arithmetical Ability in Children," *British Journal of Educational Psychology*, VI (February, 1936), 58–73

An interesting study of the number forms found in a group of 867 pupils, largely of the ages of twelve to fourteen. Found that children having number forms ranked high in arithmetic test given to the group Many sample number forms reproduced.

522. PYLE, W. H. "An Experimental Study of the Development of Certain Aspects of Reasoning," *Journal of Educational Psychology*, XXVI (October, 1935), 539–46.

Presents results from tests of approximately a thousand pupils in Grades III–XII on a series of arithmetic problems. Shows the lowest grade at which 75 per cent of the pupils could solve each problem.

523. STELSON, H. E. "Business Arithmetic for the High School," *School Science and Mathematics*, XXXV (June, 1935), 586–97.

Expands the notion of business arithmetic to include "the business side of every social institution" rather than limiting it to commercial enterprises.

524. STRETCH, LORENA B. "The Value and Limitations of Drill in Arithmetic," *Childhood Education*, XI (June, 1935), 413–16.

A carefully worded article showing the inadequacy of drill to develop insight into number and to make arithmetic meaningful. Points out positive value of drill in forming and maintaining efficient habits of number manipulation.

525. WILSON, G M. "The Challenge of One Hundred Per Cent Accuracy in the Fundamentals of Arithmetic," *Educational Method*, XV (November, 1935), 92–96.

Gives the author's view of "100 per cent accuracy" and presents a hypothetical plan for achieving such results

526. WILSON, G. M "What Research Reveals on Proper Drill Content of Elementary Arithmetic," *Mathematics Teacher*, XXVIII (December, 1935), 477–81.

Sets up certain limitations for a program of drill and criticizes attempts to drill on all operations which are taught. Presents a timely point of view which, if followed, would give pupils more time to develop the meaning aspects of arithmetic.

527. Wulfing, Gretchen. "Maturation as a Factor in Learning," *California Journal of Elementary Education*, IV (February, 1936), 148–64.

The last half of the article deals with arithmetic readiness. Summarizes existing studies, makes suggestions for further research, and gives bibliography

SCIENCE[1]

W. W. McSpadden
Teachers College, Columbia University

This bibliography on science instruction in the elementary school includes articles, courses of study, brochures, and books published during the interval of June, 1935, to June, 1936. Most of the material is of the discussion type, although definitely showing trends that are the result of research in this area. Some two or three of the articles are reports of research carried on by workers in the field. The points of view of the materials abstracted here show a striking agreement, especially when contrasted with material of only a few years ago.

528. Anderson, Mary C. "A Sixth-Grade Unit in Electricity," *Science Education*, XIX (October, 1935), 112–16.

An account of a teaching unit on electricity used with a sixth-grade class. Outcomes in terms of knowledges, skills, attitudes, and appreciations are listed

529. Blough, Glenn O. "Science in the Elementary School Program," *School Science and Mathematics*, XXXVI (March, 1936), 255–58.

A discussion of the place of science in the elementary school in relation to the general education of the child and the outcomes that may be expected

530. Bruce, G. V. "Elementary School Science: References and Instructional Materials," *Science Education*, XX (April, 1936), 78–82.

A very complete bibliography of sources of experimental activities and other "things to do" in elementary-school science

531. Croxton, W. C. "Pupils' Ability To Generalize," *School Science and Mathematics*, XXXVI (June, 1936), 627–31.

A presentation of the results of five experiments especially carried out to test the ability of children to generalize. Tabulated results show an increasing percentage of correct generalizations with each grade from kindergarten through Grade IX. "There is little in these experiments to indicate that junior high school pupils possess markedly superior ability to generalize than intermediate-grade pupils possess, the difference in scores in favor of the former being little more than might reasonably be credited to added experience"—a significant statement in view of the somewhat controversial issues that have been raised about this point.

---

[1] See also Item 360 (Haupt) and chapter vii of Item 367 (Norton and Norton) in the list of selected references appearing in the September, 1936, number of the *Elementary School Journal*.

532. DETRAZ, JULIA, SIDLEY, MARGARET; and WYLER, ROSE. "Air and Weather," *NCES News Notes*, II (November, 1935, and January, 1936), 67–69, 84–85. Salem, Massachusetts: National Council on Elementary Science (W. G. Whitman, Managing Editor, % State Teachers College).

An interesting unit in science for kindergarten and Grade I worked out by two classroom teachers in collaboration with a science specialist. Describes many useful activities and children's reactions to them

533. *Elementary School Science Syllabus*, Vol. I. Glens Falls, New York: Glens Falls Public Schools, 1936.

The first of two volumes comprising the course of study in elementary-school science for Glens Falls. This volume treats in detail the topics for the kindergarten and Grades I, II, and III. Many helpful activities are suggested in connection with each topic. The book is the work of a committee of classroom teachers whose purpose it was to offer a continuous, integrated program of tested science material. In the opinion of the writer, this course is one of the most significant pieces of work in elementary-school science that has been developed.

534. *Elementary Science:* Course of Study: Vol. I, Primary Grades, pp. 184; Vol. II, Grades IV, V, and VI, pp. 172; Vol. III, Grades VII and VIII, pp. 104. Council Bluffs, Iowa: Council Bluffs Public Schools, 1936.

One of the particularly interesting, recently published courses of study in elementary-school science.

535. FITZPATRICK, FREDERICK LINDER *Science Interests*. New York: Teachers College, Columbia University, 1936. Pp. vi+72.

A critical study, the conclusions of which throw into question previous interpretations of studies of interests.

536 HEFFERNAN, HELEN. "A State-wide Program of Science Education in Elementary Schools," *Education*, LVI (March, 1936), 400–404

A discussion of the science program in the California elementary schools The place of the state bulletins, *Science Guide for Elementary Schools*, is considered The material in the bulletins is being tested in several elementary schools in co-operation with the specialists who prepare it The various approaches and outcomes of the units tested by the teachers and children are entertainingly related in this article.

537. LEINING, EDNA BRIDGE. *Millions of Years in a Winter*. Lincoln School Curriculum Studies, Units of Work New York: Lincoln School of Teachers College, Columbia University, 1935. Pp. viii+198.

An adventure with science in Grade IV. A beautifully written narrative of educational experiences, with materials taken predominantly from science, which were continuous through a long interval.

538. MELROSE, MARY. "Radio Lessons in Elementary Science," *School Science and Mathematics*, XXXVI (February, 1936), 137–41.

An account of the elementary-school work in science being conducted by radio in the schools in Cleveland, Ohio.

539. MORRISON, J. CAYCE. "A Generalist Looks at Science in the Elementary Schools," *Teachers College Record*, XXXVII (January, 1936), 282–89.

Discussion of some of the obstacles to elementary-school science that still exist and proposals of what can be done in terms of educational values. Lists criteria by which the science program may be developed

540. PALMER, E. LAURENCE. "Teachers Number," *Cornell Rural School Leaflet*, XXIX (September, 1935), 3–63.

This number contains a series of recommendations for classroom teachers of Grades I, III, and V. The material is seasonally arranged and is primarily for rural-school teachers, though much of it is usable in urban situations. This number completes the suggestions to teachers for the first six grades, the issue of September, 1934, having contained proposals for teachers of Grades II, IV, and VI. The material in this issue (as in the 1934 number) is closely integrated with the New York State syllabus in elementary science.

541. *Science and the Young Child*. Washington: Association for Childhood Education, 1936. Pp. 40.

A bulletin prepared by the Science Committee of the association. Discusses various phases of the science work of the lower elementary school. Of particular interest is the discussion of the place of science in the nursery and the kindergarten. Other topics include a list of science activities and needed equipment and supplies, a discussion of physical science at this level, and a useful bibliography. Written by classroom teachers for classroom teachers.

542. WYLER, ROSE. "A Child Can See a Glacier," *New York State Education*, XXIII (October, 1935), 20–22.

Discusses experiences in elementary-school science that enable children to interpret geological and other phenomena in the world about them. Points out the need of developing adequate programs of teacher education in order that teachers can guide children's interest in, and appreciation of, their environment.

MUSIC[1]

ANNE E. PIERCE
University of Iowa

543. DYKEMA, PETER W., and OTHERS. "Music and Rhythms," *Socializing Experiences in the Elementary School*, pp. 343–91. Fourteenth Yearbook of the Department of Elementary School Principals. Bulletin of the Department of Elementary School Principals, Vol. XIV, No. 6. Washington: Department of Elementary School Principals of the National Education Association, 1935.

---

[1] See also Item 455 (Lamp and Keys) in the list of selected references appearing in the September, 1936, number of the *School Review*.

Experts in the field of music education have written on various topics, such as re-evaluating music in the curriculum, school choruses, music in rural schools, the verse-speaking choir, dancing, primary rhythm bands and eurythmics, and extra-curriculum activities.

544. FLAGG, MARION. "Where Next? And How Shall We Find the Way?" *Music Educators Journal*, XXII (November–December, 1935), 30–32

The author raises questions in music instruction needing careful research and experimentation, such as the place of singing in education, vocal resources of children, sight-reading and methods of teaching it, the social aspects of school music, appreciation, and creative music.

545. FOX, LILLIAN MOHR, and HOPKINS, L. THOMAS. *Creative School Music*. Newark, New Jersey: Silver Burdett Co., 1936. Pp. x+326.

A practical and comprehensive treatment of the subject. The book is divided into three parts. Part I deals with the nature and nurture of creativeness and compares old and modern educational philosophy. Part II is concerned with methods of aiding children to develop creative expression in music. Part III gives examples of original compositions of boys and girls of elementary-school age.

546. JULIAN, KATHERINE L. "Music in Other Lands," *Instructor*, XLV (May, 1936), plates I–XII.

Provides units of work for elementary-school grades. Objectives, procedures, questions, activities for pupils, and music for playing are given for each lesson. The topic for early grades is folk music, opera is the subject for intermediate grades, and the study of instruments is developed for the upper level of instruction. A brief introduction dealing with the history of music and a list of books for the teacher precede the lessons.

547. MURSELL, JAMES L. "Psychological Research Bearing on Music Education," *Music Educators Journal*, XXII (November–December, 1935), 24–25.

A summary and an evaluation of recent psychological studies concerned with music-teaching.

548. *Music Education*. Thirty-fifth Yearbook of the National Society for the Study of Education, Part II. Bloomington, Illinois: Public School Publishing Co., 1936. Pp. xii+260.

The book treats of general principles of music instruction, the place of music in the school program, course of study, activities now in vogue, and classroom and administrative problems. Each chapter was written by an educator actively identified with the work.

549. PERHAM, BEATRICE. "An Environment for Music," *Progressive Education*, XII (October, 1935), 409–12.

Describes equipment and activities for elementary-grade children in an experimental school.

550. PIERCE, ANNE E. *Good References on Teaching Music in Elementary Schools.* United States Office of Education Bibliography No. 41 (1935). Pp. 10.

An annotated and classified list of books, pamphlets, and monographs

551. STRICKLAND, RUTH G., and STOKES, GERTRUDE S. "Attitudes and Appreciations in Third and Fourth Grade Music," *Childhood Education,* XII (March, 1936), 266–69.

A short account of a progressive course of study in music for children of eight and nine years of age. The program includes singing, rhythm, notation and piano techniques, listening, and creative work.

552. THOMSON, BLANCHE C. "A Supervisory Program in Music Based upon Teacher Initiative," *Educational Method,* XV (April, 1936), 344–52.

Report of an experiment in a community with a population of approximately 16,000 to improve supervision and teaching in the elementary schools. The call program, in which supervisory visitation is made upon request, was followed during a six-year period and is described and evaluated. The author believes that the advantages of this plan far outweigh its limitations.

553. *Yearbook of the Music Educators National Conference, Twenty-eighth Year, 1935.* Chicago: Music Educators National Conference (64 East Jackson Boulevard), 1935. Pp. 544.

Contains papers, addresses, and reports delivered at sectional meetings. The material is a review of contemporary music education in the public schools and touches on all phases of teaching and administration.

ART[1]

W. G. WHITFORD

554. COX, GEORGE J. "Fusing Art with Life," *Proceedings of the Pacific Arts Association, 1935,* pp. 66–72. Stanford University, California: Pacific Arts Association (Daniel M. Mendelowitz, Secretary).

Discusses the changes which have developed in society in recent years and the need for art in relation to present-day civilization

555. CRAWFORD, C. C., and MALIN, MARY ALICE. "An Experiment with Three Ways of Teaching Water-Color Painting," *Elementary School Journal,* XXXVI (September, 1935), 40–43.

An objective evaluation of the effectiveness of instruction in water-color painting by three commonly utilized approaches: (1) preliminary pencil drawing, (2) preliminary chalk drawing, and (3) free painting. Concludes that the pencil-drawing method is superior to the chalk-sketching and free painting methods

556. D'AMICO, VICTOR E. "High Lights of a Study of Art in Our Schools," *Art Education Today,* pp. 1–16. New York: Teachers College, Columbia University, 1936.

---

[1] See also Item 359 (Haggerty) in the list of selected references appearing in the September, 1936, number of the *Elementary School Journal.*

Analyzes modern practices in art education, at the elementary- and secondary-school levels. Discusses the teacher and his training, treats the attitude of the administrator and general educator toward the subject, compares different methods, and indicates some future trends.

557. La Beaume, Louis. "Art Is a Way of Life," *Western Arts Association Bulletin*, Vol. XX, No. 1, pp 111–17. Indianapolis, Indiana: Western Arts Association (5215 College Avenue), 1935.

Discusses modern tendencies in art, with emphasis on the need for sincere expression in the arts that will reflect the ideals and modes of the present age.

558. Lee, Edwin A. "The Arts in Modern Life," *Proceedings of the Pacific Arts Association, 1935*, pp. 10–13. Stanford University, California: Pacific Arts Association (Daniel M. Mendelowitz, Secretary).

A discussion of the problems of art in modern life. Particular emphasis is given to the relation of art to leisure-time activities brought about by present economic and social changes.

559. Littlejohns, J., and Needham, A. *Training of Taste in the Arts and Crafts* New York: Pitman Publishing Corp, 1933. Pp. viii+152.

Report of a study made in Great Britain of children's reactions to arts-and-crafts products. The methods employed are unusual and furnish valuable suggestions to the student of tests and measurements.

560. Mathias, Margaret. "Art in the Integrated Program," *School Arts Magazine*, XXXV (February, 1936), 324–31.

Interprets the meaning of the term "integration" and discusses the educational values of bringing art into close articulation with all activities of the school.

561. Peck, Leigh. "An Experiment with Drawing in Relation to the Prediction of School Success," *Journal of Applied Psychology*, XX (February, 1936), 16–43.

An analysis of (1) the relation between the drawing performance and the school achievement of young children and (2) the factors influencing that relation

562. Tomlinson, R R. *Crafts for Children*. New York: Studio Publications, Inc., 1935 Pp 120.

Presents a discussion of a wide variety of craftwork that is being done by children in many lands The book is divided into six chapters: i, "A Definition of 'Crafts' ", ii, "Craft Teaching Today"; iii, "Craft Teaching in Many Lands", iv, "Principles [of Design and Their Application]", v, "Methods"; vi, "Summary and Conclusions" Three pages of color reproductions are among its profuse illustrations

563. Waterman, Elizabeth. *The Rhythm Book*. New York. A S. Barnes & Co., Inc., 1936. Pp. x+150.

A manual for teachers of children. Presents the functional relations between rhythmic movement and rhythmic expression in various art forms. Suggests possibilities for integrating such subjects as music, drawing, and physical education in preschool, kindergarten, and elementary education.

564. WILSON, DELLA F. *Primary Industrial Arts Series*, Book I, pp. 40; Book II, pp. 40; Book III, pp. 34; Book IV, pp. 48. Peoria, Illinois: Manual Arts Press, 1935.

A series of small books to aid teachers of the primary grades in presenting manipulative processes in the constructive arts Books I and II deal with paper-work, Book III with basketry and weaving, and Book IV with clay-modeling and pottery.

565. WINSLOW, LEON L. "The Preparation of Written Descriptions for Units of Teaching in Art," *Educational Administration and Supervision*, XXII (October, 1936), 481–98.

Defines the unit procedure as applied to art work and aims to rationalize the subject matter involved in terms of appropriate units of instruction. An experimental unit on toys is presented for Grade I and a unit on architecture for Grade IX.

INDUSTRIAL ARTS

HOMER J. SMITH
University of Minnesota

566. BAWDEN, WILLIAM THOMAS. "Review of Industrial Education for the Biennium, 1934–1935," *Industrial Education Magazine*, XXXVIII (March, 1936), 74–88.

Outlines the important changes and trends in theory and practice in industrial education. Attention is given to social and economic confusion, with its consequent problems for those who promote and administer industrial schools and classes. General educators will profit greatly from this summary, and workers in the special field will appreciate checking their plans with the thoughts of a serious and informed leader.

567. BLAUCH, LLOYD E. *Federal Co-operation in Agricultural Extension Work, Vocational Education, and Vocational Rehabilitation*. United States Office of Education Bulletin No. 15, 1933. Pp. xii+298.

This complete and thoroughly documented bulletin should be a part of the library of every educational worker who desires to have a historical picture of federal participation in the instruction of the youth and the adult. Through discussion of economic, social, and educational changes, the reader is led naturally into an understanding of the national point of view.

568. DIAMOND, THOMAS. "Responsibility of Industrial Arts Teacher in Social Problems," *American Vocational Association Journal and News Bulletin*, XI (May, 1936), 104–6.

The author believes that industrial-arts teachers are in a strategic position to present fundamental social and economic ideas and that they have the unavoidable responsibility of doing so. Suggestions of worthy topics are given, such as large-production organizations, redistribution of wealth, thrift, occupational selection, wages, work attitudes, leisure, etc.

569. FRIESE, JOHN F. "New Types of Industrial Curricula and Courses," *American Vocational Association Journal and News Bulletin*, X (September, 1935), 79–81.

That the post-depression period has brought new needs in the training of girls and boys, as well as of adults in service, is the theme of Professor Friese's brief statement. Chief attention is given to the program for the senior high school, with an outline of suggested types of industrial courses. Interesting notes are given on administrative costs and teaching fitness.

570. FRYKLUND, VERNE C. "Subordination of Handwork in Industrial Arts," *American Vocational Association Journal and News Bulletin*, XI (May, 1936), 71–72, 83.

The author makes the timely suggestion that good handwork be preserved as the foundation of industrial-arts instruction While recognizing the worth of the current emphasis on informational and cultural values, he argues for greater effort toward easy, correct, and practical craftsmanship.

571. HAMILTON, ALLEN T. "Graduate Work in the Field of Industrial Education," *Industrial Education Magazine*, XXXVIII (January, 1936), 34–37.

This article is essentially a plea that the teacher-training institutions keep their offerings and methods abreast of the changes in society, especially in the realms of production and exchange. The initial college degree should be given fresh meaning as the years pass. The advanced degrees should always prepare for leadership and should guarantee readiness for planning active attack on new problems

572. *How Vocational Education Has Helped in Time of Need.* Special supplement to *School Life*, XXI (October, 1935). Pp. 28.

An illustrated exposition of the service and the progress of vocational-education activities during depression years Gives facts about the assistance provided for many groups, such as the unemployed, industrial workers, farmers, homemakers, physically handicapped, and youth. Evidence is offered showing how federal, state, and local authorities have co-operated by direct and indirect means for the betterment of conditions through specific training.

573. KEPLER, F. R. "A Survey of Drafting-Room Practices," *Industrial Arts and Vocational Education*, XXV (March, 1936), 71–78

The author reports a valuable study sponsored by the Michigan Industrial Education Society One hundred and sixteen industrial firms in the state cooperated by having selected representatives (draftsmen, engineers, foremen, etc.) respond to a detailed questionnaire

574. *Labor through the Century, 1833–1933.* Bulletin of the Bureau of Labor Statistics of the United States Department of Labor, No 605, 1934 (revised). Pp 42.

A partial record of labor's part in the progress of a century is here given in brief and readable form. The bulletin, because of its content, size, and illustration, should be in every school library and should be purchased in quantity as supplementary material in industrial education and the social sciences.

575. LUEHRING, ARTHUR H., and YAGER, SYLVAN A. "A General Shop, Its Equipment and a Suggested Curriculum for the Smaller High Schools," *Teachers College Journal*, VII (March, 1936), 51–82. Terre Haute, Indiana: State Teachers College.

The general shop is interestingly explained in this article from the standpoint of origin, development, organization, advantages, and disadvantages. Shop plans, equipment, and teacher preparation are discussed, with distinct reference to schools of small enrolments. Teaching units, projects, and instructional aids are suggested in four subject-matter fields.

576. SCHMIDT, FRED J., JR. *Leisure Time Bibliography—A Guide to Books and Magazine Articles Pertaining to Leisure Time and to Avocational Interests Related to Industrial Arts Education.* Ames, Iowa: Industrial Arts Department, Iowa State College of Agriculture and Mechanic Arts, 1935. Pp. 84.

This excellent list gives references on sixty topics, such as archery, basketry, carving, furniture, kites, leather work, photography, etc Separate sets of books and magazine articles are named as representing the best literature available on each of the topics.

577 "School Shop Annual, 1936 Edition," *Industrial Arts and Vocational Education*, XXV (February, 1936), 33–70 and 1A–58A.

A special edition of one of the special journals devoted to discussion of types of industrial schools and courses, shop management, safety, and the like. It contains lists of equipment and supplies and a generous amount of helpful advertising material. It is the ninth "Annual" issued by the Bruce Publishing Company, Milwaukee, Wisconsin.

578. SMITH, HOMER J. "The Three Degrees in Industrial Education," *Industrial Arts and Vocational Education*, XXV (March, 1936), 85–88.

Deals with certain historical aspects of the granting of academic degrees through the ages and with present-day designations and meanings Suggestions are made of purposes, programs, requirements, and standards at three degree levels, with special reference to industrial education

579. "Vocational Education and Unemployment." United States Office of Education, Miscellaneous No. 1623 (1935). Pp. 115 (mimeographed).

This material is an authentic record, by states, of how vocational-education funds are being used for the relief of unemployment. It was compiled under the direction of J. C. Wright, assistant commissioner for vocational education

580. WAFFLE, HARVEY W. "Why Teach Mechanical Drawing?" *Industrial Arts and Vocational Education*, XXV (January, 1936), 3–7.

Industrial-education leaders have done much in recent years to clarify the aims of their special departments or curriculum areas. The present article is strictly in line with the great need for definite statements of the contributions to be expected from individual subjects and courses.

HOME ECONOMICS[1]

BEULAH I. COON
United States Office of Education

581 AMIDON, EDNA P. "Better Housing as an Objective of Home Economics Instruction," *Journal of Home Economics*, XXVIII (May, 1936), 301–5.

Shows the relation of housing to some other phases of home economics, lists goals to which homemaking instruction may make specific contributions, and suggests some pupil experiences which are helpful.

582. GROSS, IRMA H. "World Progress in Home Economics, 1927 to 1934," *Journal of Home Economics*, XXVIII (April, 1936), 233–40.

Summarizes points of similarity and difference in home-economics programs found in various countries at various school levels.

583. *Home Economics Education—Suggestions for Developing Programs and Course of Study Materials in Homemaking.* Pennsylvania Department of Public Instruction Bulletin 103. Harrisburg, Pennsylvania: State Department of Public Instruction, 1935. Pp 64.

Sets up principles of curriculum construction, home and community conditions that should be considered, plans of organization at different levels, outcomes and criteria for evaluating objectives and developing a measurement program in home economics.

584. *Home Economics—Suggested Course of Study for Seventh and Eighth Grades.* Columbus, Ohio: State Department of Education, 1935. Pp. 58

Presents an outline of work for seventh- and eighth-grade pupils which is the result of a study of diaries of activities and a trial and revision of a course set up to consider these activities.

585. LYDABGER, ELIZABETH, and PRESSEY, ALICE DONNELLY. "Home Economics: 1914 and 1935," *Journal of Home Economics*, XXVIII (January, 1936), 1–4

Contrasts the objectives and practices in these two periods and lists ten changes occurring in the last twenty years.

586 MILLER, ELLEN "Home Economics Subject Matter in Teaching Family and Social Relationships," *Journal of Home Economics*, XXVII (December, 1935), 637–40.

Stresses the opportunity to use this subject matter to enable pupils to live effective lives in their families and in their social group, functioning in their thinking, feeling, and doing and using the problems that they face as a basis for activity.

---

[1] See also Item 222 (Chadderdon) in the list of selected references appearing in the March, 1936, number of the *School Review* and the chapter on "Home Economics" in Item 367 (Norton and Norton) appearing in the September, 1936, number of the *Elementary School Journal*.

Of particular value to principals or teachers who are "suddenly plunged into the mysteries of classifying, arranging, and lending books." The minimum essentials of library technique are given to aid such persons.

595. LATHROP, EDITH A. *Aids in Book Selection for Elementary School Libraries.* United States Office of Education Pamphlet No. 65 (1935). Pp. 40.

A helpful guide to persons who are responsible for the selection of books.

596. LATHROP, EDITH A. *One Dollar or Less—Inexpensive Books for School Libraries.* United States Office of Education Circular No. 147 (1935).

Also a valuable reference for those in charge of school libraries. This and the preceding reference are included here because of the relation of book selection to library training.

597. *The Library in the Elementary School.* California State Department of Education Bulletin No. 18. Sacramento, California: State Department of Education, 1935. Pp. xii+140.

Of interest to school administrators, librarians, and teachers is this manual on the elementary-school library. It treats of the organization and the administration of libraries, the training of librarians and teacher-librarians, book selection, and the service of the library in the school.

598. TOWNSEND, LENORE. "The Elementary School Library," *Sierra Educational News*, XXXI (October, 1935), 30–31.

A brief description of the work carried on in the libraries of the elementary schools in Beverly Hills, California. Special reference is made to the intensive training given pupils to enable them to become independent in research work.

HEALTH AND PHYSICAL EDUCATION[1]

C. H. McCLOY
University of Iowa

599. ADAMS, ELEONORE GROFF. "Folk Dance in the Rhythms Program for High School Boys and Girls," *Journal of Health and Physical Education*, VII (January, 1936), 25–27.

While this article discusses folk dances for high schools, the principles laid down and the suggestions given apply even more forcefully to the elementary-school field.

600. ARMBRUSTER, DAVID A. "Teaching Beginners To Swim: A Physical, Physiological, and Psychological Method," *Journal of Health and Physical Education*, VII (April, 1936), 242–44, 274–75.

Although written by a college teacher of swimming, this article discusses many of the fundamental problems to be met by any teacher of beginning swimming. The approach is novel and thoroughly sound.

---

[1] See also Item 54 (Evans) in the list of selected references appearing in the January, 1936, number of the *Elementary School Journal* and Items 229 (Roberts), 288 (McCloy), 289 (Mason and Mitchell), and 292 (Stafford, DeCook, and Picard) in the March, 1936, number of the *School Review*.

601. BLANCHARD, B. E., JR. "A Behavior Frequency Rating Scale for the Measurement of Character and Personality in Physical Education Classroom Situations," *Research Quarterly of the American Physical Education Association*, VII (May, 1936), 56–66.

A behavior rating scale adapted primarily to the classroom situation. It correlates, however, with the scale devised by O'Neel (Item 609 in this list) and can well be used in conjunction with the latter

602. BLANCHARD, VAUGHN S. "The School Health Program," *Journal of Health and Physical Education*, VII (May, 1936), 295–96, 350.

A general outline of the school health program, particularly as applying to the larger school systems. The principles laid down may be applied in any situation.

603. BOOKWALTER, KARL WEBBER. "Marking in Physical Education," *Journal of Health and Physical Education*, VII (January, 1936), 16–19, 61.

A survey of practices in marking in physical education, together with some positive suggestions.

604. HOWLAND, IVALCLARE SPROW. *The Teaching of Body Mechanics.* New York: A. S. Barnes & Co., Inc., 1936. Pp. xii+204.

This book provides a practical program with a great deal of usable material for the corrective program of the public schools. It assumes a minimum of theoretical knowledge on the part of the teacher and provides a maximum of usable method

605. IRWIN, LESLIE W. "Physical and Health Education Program in the University of Chicago Laboratory Schools," *Journal of Health and Physical Education*, VII (March and April, 1936), 154–56, 200; 245–47, 280–83.

These articles discuss in some detail the organization of an outstandingly complete program of physical education in a private elementary school. Full of suggestions which may be applied to almost any elementary-school situation

606. MEMBERS OF THE STAFF OF THE DEPARTMENT OF PHYSICAL EDUCATION AND HEALTH OF THE LABORATORY SCHOOLS OF THE UNIVERSITY OF CHICAGO. *Physical Education and Health of School Children* Publications of the Laboratory Schools of the University of Chicago, No 5 Chicago: Department of Education, University of Chicago, 1936 Pp x+176.

A detailed outline of an excellent school program of physical education

607. MORTON, DUDLEY J. *The Human Foot.* New York: Columbia University Press, 1935. Pp. xiv+244.

This book gives a great deal of basic information concerning the human foot which may be utilized by teachers who are attempting to modify foot defects.

608. OBERTEUFFER, D. "Preliminary Study of Criteria for the Selection and Organization of Learning Experience in Health Instruction," *Research*

Quarterly of the American Physical Education Association, VI (October, 1935), 63–65.

An excellent study which may well be the foundation for a more constructive approach to health education.

609. O'NEEL, F. W. "A Behavior Frequency Rating Scale for the Measurement of Character and Personality in High School Physical Education Classes for Boys," *Research Quarterly of the American Physical Education Association*, VII (May, 1936), 67–76.

This scale is adapted for measuring behavior in a semi-objective manner and is one of the best at present available for use by physical-education teachers who are attempting experiments in character education.

610. POE, ARTHUR CLAYTON. "The Legal Liability for the Injury of Children in Public Schools," *Journal of Health and Physical Education*, VII (February, 1936), 72–75, 123–25.

This study is a comprehensive survey of legal cases arising over injuries to children in gymnasium and playground. It is thoroughly documented and will serve as a basis for meeting similar situations which may arise in any school.

611. *Principles and Practices in School Health Education, 1935*. Washington: National Education Association, 1935.

The proceedings of the eighth conference arranged by the American Child Health Association. A comprehensive study of health-education practices for the schools.

612. REILY, HELEN M. "Basis for Grading in Physical Education," *Journal of Health and Physical Education*, VI (October, 1935), 40–41, 58.

Suggestions for marking which may be applied to the elementary-school level.

613. SEFTON, ALICE ALLENE. "A Guide to the Literature of Physical Education, Including Certain Aspects of Health Education and Recreation," *Research Quarterly of the American Physical Education Association*, VI (December, 1935), 3–47.

A selected, well-annotated bibliography of health and physical education

614. TURNER, C. E., LOUGEE, W. W., SARABIA, KATHERINE, and FULLER, RUTH PARSONS. "Rate of Growth as a Health Index," *Research Quarterly of the American Physical Education Association*, VI (October, 1935), 29–40.

This study suggests a new method of evaluating physical status which may be readily applied in the school situation.

615. WHITE, EMILY "Outline of Objectives and Materials for Rhythmic Activities for Children," *Journal of Health and Physical Education*, VI (December, 1935), 29–31, 53–54

A thoughtful, philosophical contribution to the field, valuable for those who are attempting to make original contributions in this area.

Educational Writings

REVIEWS AND BOOK NOTES

A comprehensive treatment of the principles of budgetary methods. The book under review[1] interprets the budget in its practical relations to the many aspects of public-school administration. The budget, as a recapitulated expression of the plan of spending and of the potential moneys made available for school purposes, is introduced to the reader through its social implications. These, the author indicates, are very important even though the economic aspects of the budget play a larger part in the management of schools. The theme underlying the treatment in this volume is the significance of the budget as an instrument that binds together the various parts of the fiscal program.

This book is the outcome of several intensive, country-wide studies of procedures in certain phases of business administrations in public-school systems of various sizes. The practices actually used in the administrative offices have been analyzed and checked against projected theory. The most acceptable and useful forms that were found while these studies were being made have been introduced to illuminate the text and to serve as convenient aids to the reader. Principles of budgetary methods have been well organized and practically illustrated. The author has drawn liberally from the works of other students in this field and has brought together in a most comprehensive manner helpful materials which will serve directly and indirectly persons interested in this subject.

The introductory chapter treats the function of the budget in public-school administration. The other fourteen chapters are grouped into four parts under the following headings: "The Preparation of the Budget," "Presentation, Interpretation, and Adoption of the Budget," "The Administration of the Budget," and "Appraisal of Budgets and Budgetary Procedures." Each group of chapters presents an important phase of the budgetary cycle. Part I discusses in detail the manner in which the budget is prepared, the method by which the educational program is planned, how expenditures and receipts are estimated, who should share in planning the budget, and how the budget should be linked with the financial accounting. The second group of chapters discusses the ways in which tentative budgets are presented to school boards, the problems that arise in the approval of the budget, and the interpretation of the budget. The third step in the budgetary cycle is the theme of Part III, which presents the budget as a functioning instrument. Its significance in the daily administration of schools is portrayed in detail. Auditing accounts, appraising the budget, and long-term budgetary planning are treated in the last three chapters. Part IV also includes an appendix in which many useful and practical forms and samples of material arrangements have been collected.

---

[1] Chris A. De Young, *Budgeting in Public Schools.* Garden City, New York: Doubleday, Doran & Co., Inc., 1936. Pp. xiv+610. $3.50.

This treatment of the budget is the most comprehensive available in educational literature. One may question the desirability of including in a treatment of this kind some of the material presented, as, for example, the chapter on auditing accounts. Yet these more or less extraneous topics do not detract from the value of the work. The book makes an excellent reference in the study of budgetary practices. Superintendents of schools and other officials assigned budgetary responsibilities will find in this publication an adaptable handbook for ready use. Hence it should be included in the libraries of all executive offices.

FRED ENGELHARDT

UNIVERSITY OF MINNESOTA

Treatise for teachers on elementary-school administration.—Recently there has been a renewal of interest in bringing to classroom teachers a clear picture of the problems of school administration and of the teacher's part in effective school management. The majority of books on school administration written during the past ten or fifteen years have been designed primarily for persons in administrative or supervisory positions. The part played in school management by the classroom teacher, who is the key person in an efficiently operating school, has been somewhat overlooked while broader problems of administration and finance were being studied. It is a pleasure, therefore, to find that several authors have recently given their attention to treatises for teachers on problems of school management.

The most recent publication in this field[1] is designed primarily for students engaged in pre-service training. The authors point out that "these new teachers must have training in the more recent viewpoints and techniques of school management and control" (p. v). The volume is comprehensive in the topics treated. Five of the eighteen chapters deal with modern procedures used in measuring, describing, interpreting, and recording the performances of pupils. The authors recognize the difficulty, and perhaps the inadvisability, of making an absolute separation in every situation of the fields of management and technique. The reviewer's opinion is that it is unwise to make sacred distinctions between administration and the educational program. After all, the chief function of organization and administration is to make it possible for the teacher to apply in the

[1] James Henry Dougherty, Frank Hermon Gorman, and Claude Anderson Phillips, *Elementary School Organization and Management* New York: Macmillan Co, 1936. Pp xx+454. $2.25

classroom the kind of an education which is desired. This result is impossible if administration and classroom teaching are considered as separate entities.

Certain features of the book merit special mention. The discussion in each chapter is preceded by a series of questions to guide the reader and to stimulate his thinking. Each chapter concludes with a group of suggestive activities for class or outside work and a well-selected list of pertinent references for supplementary reading. The material in each chapter is well organized and clearly arranged. The style is simple, clear cut, and readable. The reviewer feels that the authors have been successful in writing a book which can be understood readily by the audience for whom it is intended. Space limitations prohibit mention of the many specific topics whose treatment deserves special favorable comment. The outstanding treatment, in the reviewer's opinion, is the seven-page discussion of the mental-hygiene program, which characterizes the interrelation between administrative practices and the mental health of pupils.

Certain sections of the book are likely to be criticized unfavorably. The portions which are somewhat disappointing to the reviewer are those endeavoring to clarify for teachers the more general organizational and administrative problems. Chapter ii, "School Organization and Control," seems least satisfactory. A discussion of the nature and the importance of school organization is followed by a brief history of the development of elementary-school organization, in which attention is called on page 21 to the trend toward mechanical organization during the periods before and after the Civil War. Presumably, this discussion refers to factors of internal organization; yet on the succeeding page the advantages of organization which are listed give the impression that the term "organization" relates to larger administrative units. The uninitiated reader, for whom the book is designed, is likely to emerge with a confused notion of what organization really means. Another section in the same chapter is headed "Experiments To Develop the Elementary School Unit," in which the following sentences appear: "Many experiments were conducted and comparisons were made which indicated that the length of the elementary-school unit could be shortened from eight to seven years without loss of efficiency" (p. 28). "Recent studies tend to warrant the conclusion that the work of the elementary school may be completed . . . ." (p. 29). The reader gains the impression that the elementary schools existing today are the end product of numerous researches undertaken to discover the best unit for administering elementary education, when, as a matter of fact, the history of elementary-school organization is conspicuous for the absence of thoroughgoing researches on organizational problems. Similar somewhat misleading terminology may be found in other places in the book. To the reviewer the first six pages of chapter xii on classification and promotion of pupils seem confusing. "Classification" is defined "as a means of organizing pupils into instructional groups" (p. 250), but, in the discussion on the need for classification and on the functions of classification, it is not always clear whether the term "classification" is used with this generalized meaning or whether it refers to a particular plan for classification. Although the authors have treated the many aspects of classification, it is not certain that they have given the uninitiated teacher a clear picture of the phases or stages in classification, namely, the assignment of pupils to school units, the allocation of pupils within a given school unit to classrooms or teachers, the readjustments between classes, and the continuous rearrangement within each class by the teacher according to the nature of the learning exercise and the ability of the members of the class group. On pages 284 and 285 the reader gains the impression that such plans as the New Cambridge Plan, the North Denver Plan, and the Santa Barbara Plan are still in operation. These comments should not be interpreted as really serious criticisms of the book but rather as disappointments of the reviewer in a critical reading of a treatise which is designed to clarify organizational and administrative problems for prospective teachers.

HENRY J. OTTO

W. K. KELLOGG FOUNDATION, BATTLE CREEK, MICHIGAN

Public education expands its services.—A study of the statutes dealing with education reveals that the services of the public schools are gradually being expanded. Not so long ago it was thought that the function of the public school was almost exclusively that of imparting knowledge, and legislators were loathe to pass any laws expanding that scope Gradually, however, our philosophy of education has changed until we have come to believe that education consists of more than the development of the intellect. We have come to believe that the social aspect of education is as important as its intellectual aspects, and in many cases may even be more important. This philosophy has influenced legislators, and recently many laws have been enacted for the purpose of broadening the scope of the public school. The monograph being reviewed[1] is concerned with a study of some of these laws

The problem of this study is stated in the following questions.

> 1. What services of a recreational, medical, and social nature are now authorized by the statutory law of the forty-eight states?
>
> 2 What implications of significance to educators, legislators, and the public may be drawn from the expressions of legislative policy as revealed in the statutes?
>
> 3. What principles may be formulated that will be of assistance to educators and legislators in determining the proper function of the public schools in providing services of a recreational, medical, and social nature in the future? [Pp. 1–2.]

The report consists of four chapters in addition to those devoted to the introduction and summary. The first three of these deal with the recreational, medical, and social services, respectively, of the public schools as these are defined in the statutes of the forty-eight states. The next chapter, based on court decisions, is concerned with the identification and discussion of those legal principles which may be used as a guide in determining the limits of the public-school program. In this chapter the author makes his greatest contribution, for in the principles which he has isolated the legislature finds authority for broadening the scope of public education through the enactment of statutes. It is with these principles rather than with state laws already passed by the legislatures that the beginning must be made in developing a program of public education which has for its aim the adaptation of the public school to present-day needs.

---

[1] Everett C. Preston, *Principles and Statutory Provisions Relating to Recreational, Medical, and Social Welfare Services of the Public Schools* Teachers College Contributions to Education, No. 661. New York: Teachers College, Columbia University, 1935. Pp. vi+142 $1.50.

Following are some of the most important principles which the author isolates

> 1. The people through the legislature and constitution have a right to control and prescribe limits in supplying education at public expense. . . . .
>
> 2 Under constitutional direction merely to establish and maintain free schools, the legislature may enact any legislation in regard to the conduct, control, and regulation of them which does not deny the citizen the constitutional rights to enjoy life and liberty, to pursue happiness, and to acquire property. . . . .
>
> 3. The legislature may, within *constitutional* limitations, make any law which promotes the order, safety, health, morals, and general welfare of society. . . . .
>
> 4. It is exclusively within the power of the legislature to determine what the policy of the commonwealth shall be . . . . .
>
> 5 School agencies are agencies of the state existing for the sole purpose of performing duties in maintaining an efficient system of free schools. . . . .
>
> 6. Trustees of common-school districts have discretion to expend funds for purposes reasonably necessary to maintain schools. . . . .
>
> 7. The primary purpose of the common-school system is the promotion of general intelligence. . . . .
>
> 8. The education of a child means more than merely communicating to it the contents of a book. The physical and mental powers of the individual are so interdependent that no system of education is complete which ignores bodily health . .
>
> 9. The physical development of a child attending school cannot be had without a suitable plan for recreation and exercise [pp. 124–29].

The monograph gives every indication of careful preparation. It is well written and thoroughly documented. It should prove of value to school administrators and others interested in educational planning. This value might have been enhanced had a discussion of the nature of the power of legislatures to pass laws broadening the scope of the public school, as this power is determined in the chapter dealing with legal principles, preceded the discussion of the legislatures' attempts to expand the scope of public education.

LEE O. GARBER

STATE TEACHERS COLLEGE, MANKATO, MINNESOTA

Education for social change.—Recent events in America direct attention to the rate and the direction of social change. Numerous interpretations of developments and forecasts of possibilities have appeared. By implication or direct reference, education is projected into the conceived trend of change. Thus, a recent study[1] emphasizes the rôle of education in class conflict—a conflict thought essential to change that will enrich the lives of workers.

Three essential aspects of education are listed: transmitting the cultural heritage, developing self-directing individuals, and enlisting the workers "in an organized struggle for control of the means of satisfying their material and cultural needs" (p. 2). Since the author believes that the first two aspects are receiving attention, the book is devoted to the third. The educational program embraces schools, the press, radio, and talking pictures; and workers include teachers and students.

The first of the seven chapters briefly identifies the three problems of education. Chapter ii relates Dewey's concept of "education as growth" to the kind of change which enables workers to achieve enriched lives; compares the usual program with the needs; sketches two approaches to change, formal education and social planning to modify the environment; and refers to the school's place in planning. The next chapter comments on worthy home membership as an educational objective among slum dwellers; shows the relation of slums to family income, worthy use of leisure, and the development of personality; shows the relation of literacy to length of school term, of hygiene to housing, etc.; and develops the idea that education should "help people understand what they want and how to get it" (p. 46).

Chapters iv and v relate to "The Social Conflict as Reflected in Educational Theory." Chapter iv deals largely with two types of reasoning: Hegelian dialectic with slight modifications (called "revolutionary") and status quo reasoning (called "idealistic" in attempting to escape dialectic determinism). The author reviews the relation of profit-motivated business to social conflict, to experimental attitude and scientific method, and to the individual as environmentally determined. Chapter v contrasts middle-class and proletarian democracy with respect to its treatment of higher education and of undernourished children, pictures class collaboration in the educational theory of Dennis' "dominant élite," Finney's hierarchy of intelligence, Horne's ideal of democratic education, Cubberley's idealization of the state and of big business, Briggs's "great investment," Rugg's "great technology," and in the views expressed in *The Educational Frontier;* refers to Fascist influences in American education; and focuses the foregoing considerations on the third problem of education.

The last two chapters deal with "The Third Problem of Education and the Schools." Chapter vi gives attention to class alignment within present school programs; the rôle in workers' education of such elements as literature, geography, natural science, shopwork, projects, and extra-curriculum activities; and the capitalistic tenor of the influence of the press and the motion picture The last chapter refers to school organization as modeled on business, the similarity of the goals of teachers and of labor groups; the need for greater social and political emphasis in teacher education; and the idea of freedom for the masses as a conquest and not as a gift.

---

[1] Howard David Langford, *Education and the Social Conflict.* Kappa Delta Pi Research Publications. New York Macmillan Co., 1936. Pp. xxviii+210 $1.75

The book includes a fairly elaborate table of contents, an eight-page bibliography, a ten-page index, abundant citations, and many extensive footnotes.

A twelve-page foreword by the editor of the Kappa Delta Pi series, in which the book appears, is hardly necessary to indicate that the editor assumes no responsibility for the author's philosophy, which the editor considers "distinctly radical"; if the editor wants to develop his own philosophy, he should do it elsewhere. Moreover, readers may feel that only the terminology is radical. The basic idea of education as an agency for transforming society is not new, and alert educators are now familiar with ideas of social planning, slum clearance, etc., including modification of non-school educational influences. Many of the author's ideas will be familiar to persons acquainted with the literature of social change. The frequent use, however, of such phrases as "organized struggle of the workers," "inevitable class conflict," "incompatibility of workers and capitalist interests," "seizure of power by the workers," in such a manner as may frighten bourgeois-conditioned readers into imagining a re-enactment of the Russian Revolution, is at best indiscreet. Anyone acquainted with judicial interpretations, conferences on arbitration, legislative procedure, or political campaigns knows that Americans are familiar with conflicts of interest It seems, then, a weakness to use machine-gun tactics where a rational approach offers promise. Moreover, it seems erroneous to conceive of American society as composed of two classes, capitalists and workers, with a gap between them and homogeneity within each class. This conception oversimplifies our social structure.

The author, nevertheless, has made a stimulating analysis of several aspects of American education and of the reasons for wide gaps between theory and practice. Any reflective educator will find numerous statements and perhaps some inclusive concepts with which he may disagree; yet he will find it helpful to use the author's analysis of theories and his review of practices as a point of departure in thinking. The book is equally suited to administrators, teachers, and students of social problems in the broader sense. It should be stimulating to the complacent reader as well as to the dissatisfied person.

HAROLD H. PUNKE

GEORGIA STATE WOMAN'S COLLEGE
VALDOSTA, GEORGIA

Current practice in supervising student teaching in public high schools. The inadequacy of practice teaching in elementary and secondary schools which are located on the campuses of higher institutions has long been recognized. Two serious limitations attach to the use of such schools: (1) The amount of practice which can be provided is usually not sufficient to supply the demand. (2) The conditions under which students teach are usually not typical of the conditions in public-school systems. In order to overcome these limitations, teachers' colleges and other higher institutions that train teachers have increasingly of late developed co-operative relations with public-school systems and secured permission to assign student teachers to them. This plan has been in operation for a sufficient number of years to justify the demand that the policies and practices adopted be surveyed and appraised. The results of one such appraisal are now available through the report of Strebel,[1] who made a survey of student teaching in universities that assign students to co-operating high schools.

The chief aim of the author was to study the nature of the supervision of the student teaching provided by universities which use co-operating public high schools. He attempted to achieve three purposes: (1) to provide a picture of current supervisory practices, (2) to present an evaluation of these practices in terms of principles established by documentation, and (3) to provide constructive recommendations justified by an analysis of the data secured. The major findings and conclusions presented were based on data secured from forty-two institutions through the use of three questionnaires.

One questionnaire was directed to supervisory officers and requested information relating to their professional status, their supervisory activities, and their opinions concerning certain supervisory techniques. A second questionnaire, addressed to student teachers, called for information concerning certain aspects of their duties, their attitudes toward certain supervisory practices, and suggestions for the improvement of student teaching. A third questionnaire was sent to directors of student teaching and requested information concerning administrative practices relating to student teaching. As an aid in establishing criteria for use in evaluating the findings, a survey was made of recent literature for statements by recognized authorities in the fields of supervision and student teaching. The judgments thus secured resulted in the adoption of ten principles, the first of which is worded as follows: "The student teacher should be inducted into responsible teaching by means of a progressive series of increasingly difficult and increasingly complex activities" (p. 13).

The findings and evaluations are presented in four chapters: "Professional Status of Supervisory Staff," which includes an analysis of their training and experience; "Supervisory Activities during Induction," with special emphasis on inductive observation, inductive participation, and conferences during induction; "Supervisory Activities during Responsible Teaching," including a detailed consideration of such problems as lesson-planning, supervisory conferences, demonstration teaching, and supervisory visits, and "Summary, Conclusions, and Recommendations."

The findings of the survey provide the most comprehensive picture available of current practices in the supervision of student teaching in co-operating high schools. The data reported by respondents have been carefully analyzed, organized, and presented. They supply detailed facts concerning supervisory practices which should be of great interest and value to all who are responsible for directing student teachers. The challenging conclusions and recommendations should result in constructive effort on the part of those responsible for the organization and supervision of student teaching.

---

[1] Ralph F. Strebel, *The Nature of the Supervision of Student-Teaching in Universities Using Co-operating Public High Schools.* Teachers College Contributions to Education, No. 655. New York: Teachers College, Columbia University, 1935. Pp. vi+156. $1.75.

By virtue of its content and organization, the report of the study may be used as a helpful guide in a self-survey of student teaching by any institution which utilizes co-operating public high schools. It may be used to great advantage also by those who are preparing for administrative or supervisory positions in the field discussed.

William S. Gray

A summary of studies of reading readiness.—The appearance of a book devoted entirely to reading readiness[1] is an indication of the great interest taken in this subject by teachers and administrators. More and more every year educators are coming to realize that the school manufactures failures and problem cases by requiring reading of many children before they are ready to read, thereby foredooming them to failure and its consequences. The book under discussion does not emphasize the magnitude of this danger as it might, devoting itself rather to the four topics· "Factors Influencing Reading Readiness," "Instruction Fostering Reading Readiness," "The Testing Program for Reading Readiness," and "Placement and the Remedial Program."

Undoubtedly, all persons concerned with beginning reading should become acquainted with this book because it gathers together a large bulk of material that has previously been widely scattered. It thus renders an especial service to the many school people who do not have easy access to a professional library. The excellence of this service makes one regret that the book does not go farther. Unfortunately it does not add to our knowledge about reading readiness. Data and opinion are quoted at length, but there is not the analysis one would wish for. For instance, intelligence tests are discussed at one point and readiness tests at another, but whether the school is really dealing with a problem of general maturity or of special ability or whether the tests indicated really measure one or the other characteristic in the case of school entrants is not discussed. Nor does the author discuss the many, many cases in which both kinds of tests simply fail to give a true predication of readiness or lack of it. The reader may also wish that readiness itself had been analyzed more deeply. For instance, interest in reading may show readiness for the memory type of beginning reading—a fact recognized by the early use of that type. It may not show, however, readiness for word recognition, a fact which is recognized by delaying for many children the breaking up of charts into smaller units. Such analysis of the quoted data would have added greatly to the value of the whole study. The reader will regret also the common appearance of conflicting quotations without discussion. On one page a quotation says that "tendency to reverse" is "one of the prime causes of failure to learn to read" (p. 12), while a little farther on another quotation says that this tendency "cannot be a cause of poor reading" (p. 14). Surely, a student of a subject might be expected to grapple with such clearly indicated problems.

---

[1] M. Lucile Harrison, *Reading Readiness* Boston: Houghton Mifflin Co., 1936 Pp viii+166. $1.20

The book is "designed primarily for classroom teachers" (p. v), and it should be of great help to them. It is to be hoped that they will not be confused by the mere mass of material and by the rather elaborate proposals for testing and for fostering reading readiness. The practices of experimental schools need to be "translated" in many cases for the teachers of "ordinary" schools. Nevertheless, Miss Harrison has done a service in presenting the materials contained in this book.

E. W. DOLCH

UNIVERSITY OF ILLINOIS

A fusion course in social studies for junior high schools.—For a long time many teachers have been correlating the social-studies courses in government, geography, and history. Now the "fusion" course, a combination of these subjects, is popular. Used with the laboratory method of teaching, this plan would seem to be desirable, and, where proper equipment can be made available, much advantage can be gained A new textbook for junior high schools[1] which provides a guide for teaching such a fused course in civics, geography, and United States history will be welcomed by those social-studies teachers who favor fusion.

The book, according to the authors, is definitely an activities-program textbook in American history, the history being treated topically rather than chronologically and fused with enough geography to explain history and with enough civics to transform the dead past into the living present. Thus, three educational ideas—the fusion of the various fields, the unit organization, and the pupil-activity method—are presented in this new book. The book supplies merely those facts which may be regarded as the minimum essentials The pupils are expected to gather additional facts from sources mentioned in the book or from other sources selected by the teacher and pupils The emphasis is "not on the content" but on the "method of procedure."

The descriptive material of the book is frankly more or less sketchy, heavy reliance being placed on reference material. At the end of each chapter an excellent reading list is provided, as well as a long list of problems, questions, and suggested activities. In spite of the fact that the book claims to discard the chronological method and to adopt the unit plan, much of the organization remains chronological. This plan of organization places upon the teacher the task of providing the material and organizing the suggested activities for each day.

---

[1] Lillian S Coyle and Walter P Evans, *Our American Heritage* New York: McGraw-Hill Book Co, Inc., 1936. Pp xviii+718. $1.80

This arrangement, according to certain moderns in the profession, is as it should be, especially where the school is organized on a departmental plan. There the teachers will have the time, preparation, and (it is hoped) the inclination to follow some plan save the letter of the textbook which is furnished them. With proper library facilities the skilful teacher, having the proper perspective, will be able to make this book the basis of an attractive and ideal course which will profit all concerned.

A sketchy book of this type is open to many criticisms of content and proper emphasis. For instance, there is no mention of the Colonial opposition to the Revolution. The adoption of the Constitution apparently was given a unanimous vote by the people. Much is made of the history of Pennsylvania, probably because of the fact that the course was prepared for use in the schools of Philadelphia. Patriotic societies and others will wonder why many of the heroes were omitted, for example, von Steuben and Pulaski. Why was Molly Pitcher mentioned?

The thought questions given in the book should perhaps have been placed at the ends of the paragraphs instead of interrupting the text. The bibliography at the end of the book is excellent. Both the one-volume and the two-volume editions appear in splendid typography and attractive bindings. This textbook will appeal to many teachers and pupils.

W. H. HATHAWAY

RIVERSIDE HIGH SCHOOL, MILWAUKEE, WISCONSIN

CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY AND PRACTICE

BRUNSCHWIG, LILY. *A Study of Some Personality Aspects of Deaf Children.* Teachers College Contributions to Education, No. 687. New York: Teachers College, Columbia University, 1936. Pp. xii+144.

CUFF, NOEL B. *Educational Psychology.* Louisville, Kentucky: Standard Printing Co., Inc., 1936. Pp. vi+388. $2.50.

DUGGAN, ANNE SCHLEY. *A Comparative Study of Undergraduate Women Majors and Non-Majors in Physical Education with Respect to Certain Personal Traits.* Teachers College Contributions to Education, No. 682. New York: Teachers College, Columbia University, 1936. Pp. viii+118.

EARLE, FRANK M. *Tests of Ability for Secondary School Courses.* Publications of the Scottish Council for Research in Education, Vol. X. London: University of London Press, Ltd., 1936. Pp. xiv+138.

FEDIAEVSKY, VERA, in collaboration with PATTY SMITH HILL. *Nursery School and Parent Education in Soviet Russia.* New York: E. P. Dutton & Co., Inc., 1936. Pp. xx+266. $2.50.

HAYS, EDNA. *College Entrance Requirements in English—Their Effects on the High Schools:* An Historical Survey. Teachers College Contributions to

Education, No 675. New York: Teachers College, Columbia University, 1936. Pp. vi+142.

KNUDSEN, CHARLES W., and MCAFEE, LUCIUS O. *An Introduction to Teaching* Garden City, New York: Doubleday, Doran & Co , Inc., 1936 Pp. xvi+424. $2.00.

KRAMER, MAGDALENE E. *Dramatic Tournaments in the Secondary Schools.* Teachers College Contributions to Education, No. 685. New York: Teachers College, Columbia University, 1936. Pp. x+176.

LEVERTON, GARRETT H *The Production of Later Nineteenth Century American Drama:* A Basis for Teaching. Teachers College Contributions to Education, No. 677. New York: Teachers College, Columbia University, 1936. Pp. 130.

LOUTTIT, C. M. *Clinical Psychology:* A Handbook of Children's Behavior Problems. New York: Harper & Bros., 1936. Pp. xx+696. $3.50.

LOWTH, FRANK J. *Everyday Problems of the Country Teacher:* A Textbook and a Handbook of Country-School Practice. New York: Macmillan Co., 1936 (revised). Pp. xii+626. $2.25.

MORLAN, GEORGE. *America's Heritage from John Stuart Mill.* New York: Columbia University Press, 1936. Pp. viii+210. $2 00.

PERKINS, CLELLA LESTER. *How To Teach Music to Children.* Chicago: Hall & McCreary Co., 1936. Pp. viii+216. $1.50.

PRESTON, CARLETON E. *The High School Science Teacher and His Work:* A Textbook for Teachers' Colleges, University Departments of Education, and Normal Schools. New York: McGraw-Hill Book Co., Inc., 1936. Pp. xviii+272. $2 00.

RIVLIN, HARRY N. *Educating for Adjustment:* The Classroom Applications of Mental Hygiene New York: D. Appleton-Century Co., Inc., 1936 Pp xiv+420.

RODGERS, ELIZABETH G. *An Experimental Investigation of the Teaching of Team Games:* A Study, Applied to the Elementary School Level, of Three Methods of Teaching. Teachers College Contributions to Education, No. 680. New York: Teachers College, Columbia University, 1936. Pp. vi+66.

ROGERS, MURPHY P. *A State's Supervision of Its Elementary Schools:* The Development and Present Activities of the Elementary Division of the State Department of Education of Louisiana, and a Program for Its Future Service Teachers College Contributions to Education, No 679. New York: Teachers College, Columbia University, 1936. Pp. vi+118

RUGG, HAROLD. *American Life and the School Curriculum·* Next Steps toward Schools of Living. Boston· Ginn & Co., 1936. Pp. xii+472 $2 60.

SHROPSHIRE, OLIVE E *The Teaching of History in English Schools.* Teachers College Contributions to Education, No. 671. New York· Teachers College, Columbia University, 1936. Pp viii+190.

SOBEL, FRANCES S. *Teachers' Marks and Objective Tests as Indices of School

Adjustment. Teachers College Contributions to Education, No. 674. New York: Teachers College, Columbia University, 1936. Pp. viii+74.

WILLIAMSON, OBED JALMAR. *Provisions for General Theory Courses in the Professional Education of Teachers.* Teachers College Contributions to Education, No. 684. New York: Teachers College, Columbia University, 1936. Pp. vi+186.

BOOKS PRIMARILY FOR ELEMENTARY-SCHOOL TEACHERS AND PUPILS

BRUNER, HERBERT B., and SMITH, C. MABEL. *Social Studies:* Intermediate Grades, Book I. New York: Charles E. Merrill Co., 1936. Pp. viii+440. $0.96.

CHARTERS, W. W., SMILEY, D. F., and STRANG, RUTH M. *Health and Growth Workbooks:* First Book, pp. 80; Second Book, pp. 88; Third Book, pp. 74; Fourth Book, pp. 90; Fifth Book, pp. 92; Sixth Book, pp. 92. New York: Macmillan Co., 1936. $0.28 each.

CURTIS, FRANCIS D. *Workbook To Accompany Caldwell and Curtis's "Science for Today."* Boston: Ginn & Co., 1936 Pp. viii+198. $0.60.

DEARBORN, BLANCHE J. *City Friends.* New York: Macmillan Co., 1936. Pp. vi+194. $0.72.

GILLET, HARRY O, DURELL, THOMAS J., and DURELL, FLETCHER. *The New Trend Arithmetic:* Third Year, pp. xii+306; Fourth Year, pp. xiv+306. New York: Charles E. Merrill Co., 1936.

HAEFNER, RALPH. *Fingers That Talk:* A Typing Book for Children Eight to Eleven Years of Age. New York: Gregg Publishing Co., 1936. Pp. 122 $1.00.

PENNELL, MARY E., and CUSACK, ALICE M. *The Children's Own Readers:* Book IV, pp. 416, $0 84, Book V, pp. 480, $0.88; Book VI, pp. 496, $0.92. Boston. Ginn & Co., 1936 (new edition).

POWERS, SAMUEL RALPH, NEUNER, ELSIE FLINT, and BRUNER, HERBERT BASCOM *Directed Activities:* II, A Workbook To Guide Pupils in Their Study of This Changing World. Boston: Ginn & Co., 1936. Pp. 124. $0.48.

RENNIE, WALTER A., and SMITH, MIRIAM E. *A Students' Workbook in Music Appreciation,* pp iv+84, $0 35, *Teachers' Handbook to "A Students' Workbook in Music Appreciation,"* $0.75. Toronto, Canada: Clark, Irwin & Co, Ltd., 1936.

Teachers' Lesson Unit Series: No. 93, *Farm Life* (Grade VI) by Mary Frix Kidd, *Rural Health* (One-Room School) by Mrs. Alexander Millar, and *Wind, Clouds, Rain, Ice, and Snow* (Grades IV, V, VI) by Beulah Beal and Others; No. 98, *The Correlation of History, English, and Latin* (Grade IX) by Marian W. Campbell, *Roman Civilization* (Grades VII to IX) by Virginia B. Smith, and *The Rise of Modern Italy* (Grade VIII) by W. Harry Snyder. New York. Teachers College, Columbia University, 1936.

WATKINS, RALPH K., and BEDELL, RALPH C. *General Science for Today.* New York: Macmillan Co., 1936 (revised). Pp. x+716. $1.72.

Wheeler Educational Game Devices. "Add-o": Arithmetic Series IIA and IIB for Grades II and III; "Read-o". Reading Series IA and IB for Grade I. Johnson City, Tennessee: Wheeler Educational Game Devices, State Teachers College, 1936. $1.60 each.

PUBLICATIONS OF THE UNITED STATES OFFICE OF EDUCATION AND OTHER MATERIAL IN PAMPHLET FORM

Alcohol and Narcotics: A Bulletin of Instructional Material Related to the Physiological and Social Effects of Alcoholic Beverages and Harmful Drugs. Bulletin No. 302. Lansing, Michigan: State Department of Public Instruction, 1936. Pp. 58.

CAMERON, MAXWELL A. *The Financing of Education in Ontario.* Bulletin No. 7 of the Department of Educational Research. Toronto, Canada: Department of Educational Research, University of Toronto (371 Bloor Street West), 1936. Pp. 176. $1.00.

Development and Progress of Special Classes for Mentally Deficient Children in Connecticut. New Haven, Connecticut: Connecticut Special Education Association (Mary A. Reynolds, President, 31 Trumbull Street), 1936. Pp. vi+126.

Education for Safety. Bulletin No. 303. Lansing, Michigan: State Department of Public Instruction, 1936. Pp. 84.

Eighth Annual Report of the Scottish Council for Research in Education, 1935–1936. Edinburgh: Scottish Council for Research in Education (46 Moray Place), 1936. Pp. 16.

EVENDEN, E. S. *The Education of Teachers in Oregon:* Address Delivered on the Occasion of the Dedication of the J. H. Ackerman Training School, Eastern Oregon Normal School, La Grande, Oregon, January 27, 1936. Elementary Education Bulletin, No. 2. La Grande, Oregon: Eastern Oregon Normal School, 1936.

FITZPATRICK, FREDERICK LINDER. *Science Interests.* New York: Teachers College, Columbia University, 1936. Pp. vi+72.

GOOD, WARREN R. *An Introduction to Statistics.* Emphasizing Applications to Education. Ann Arbor, Michigan: Ann Arbor Press, 1936. Pp. 48.

GRIFFING, JOHN B. "Résumé of the Douglas-Allen Claremont Survey of the CCC Educational Program in the March Field and Fort MacArthur Districts." San Francisco, California: Headquarters Ninth Corps Area, Office of the Educational Adviser, Presidio of San Francisco. Pp. 32 (mimeographed).

Instructional Guide for Elementary Schools. Bulletin No. 301. Lansing, Michigan: State Department of Public Instruction, 1936. Pp. 164.

LEONARD, J. PAUL, and WEEKS, HELEN FOSS. *A Syllabus in Fundamentals of Secondary Education.* A Survey of Its Development, Present Status, Basic

Psychology, and Principles. Ann Arbor, Michigan: Edwards Bros., Inc., 1936 (third experimental edition). Pp. xviii+78. $2.00.

Motion Pictures of the World: The Educational Film Directory, Fall–Winter, 1936–37. Boston: International Educational Pictures, Inc. (40 Mount Vernon Street), 1936.

PHARES, EARL E., and BROWN, EDWIN J. *A Self-rating Scale for High School Principals.* Studies in Education Number (Eleventh of the Series). Bulletin of Information, Vol. XVI, No. 6. Emporia, Kansas: Kansas State Teachers College of Emporia, 1936. Pp. 34.

Proceedings of the Nineteenth Annual Meeting of the Northwest Association of Secondary and Higher Schools, Spokane, Washington, April 6 to 8, 1936. Spokane, Washington: Northwest Association of Secondary and Higher Schools (322 Columbia Building). Pp. 60.

Recent issues of the Office of Education:

- Bulletin No. 2, 1935—*Statistics of State School Systems, 1933–34:* Being Chapter II of the *Biennial Survey of Education in the United States: 1932–34* (advance pages) by David T. Blose and W. S. Deffenbaugh. Pp. vi+112
- Bulletin No. 13, 1935—*Statistics of the Education of Negroes, 1929–30 and 1931–32* by David T. Blose and Ambrose Caliver. Pp. iv+48.
- Bulletin No. 3, 1936—*Junior Colleges* by Walter J. Greenleaf. Pp. iv+86.
- Bulletin No. 4, 1936—*State Provisions for Equalizing the Cost of Public Education* by Timon Covert. Pp. vi+50.
- Bulletin No. 18-III, 1936—*Youth . . . Education for Those Out of School* by H. B. Swanson. Pp. 76.

Teacher Retirement Legislation for Kentucky. Bulletin of the Bureau of School Service, Vol. IX, No. 1. Lexington, Kentucky: University of Kentucky, 1936. Pp. 106. $0.50.

Tentative Manual for Guidance in the Virginia Secondary Schools. State Board of Education Bulletin, Vol. XIX, No. 1. Richmond, Virginia: State Board of Education, 1936. Pp. 72.

Twenty-third Annual Conference on Educational Measurements: Held at Indiana University April 3 and 4, 1936. Bulletin of the School of Education, Vol. XII, No. 4. Bloomington, Indiana. Bureau of Co-operative Research, Indiana University School of Education, 1936. Pp. 60. $0.50.

TYSON, LEVERING, and DONOVAN, WILLIAM J. *Retrospect and Forecast in Radio Education.* Chicago: University of Chicago Press, 1936. Pp. iv+28. $0.25.

THE ELEMENTARY SCHOOL JOURNAL

VOLUME XXXVII DECEMBER 1936 NUMBER 4

Educational News and Editorial Comment

SOME EDUCATIONAL IMPLICATIONS OF INTERNAL MIGRATION IN THE UNITED STATES

Owing to differentials in the rate of reproduction in the urban and the rural population, to differences in the economic resources of communities and regions, to improved means of travel and transportation, to technological advances in agriculture, and to other causes, there has been for a number of decades a marked increase of internal migration in the United States While some movement of population from city to country has taken place, the great majority of migrants have moved from farms to villages and urban communities. Before 1930 there was a continuous flow of population from farm to city, across state lines, and from region to region. During the 1920's the total net migration of the rural-farm population amounted to nearly six million persons. During these years the drawing power of the cities was fully as great as that of the frontier or cheap land in the middle of the last century. It was, however, the southern farms that supplied the labor resources of the nation during this decade of phenomenal urban concentration, approximately 60 per cent of the net migration from farms being from farms located in the South.

The high degree of mobility which has prevailed among the American people means that many persons are spending their mature years in states or regions other than those in which they were born or in which they received their education. In 1930, for example, approximately 24 per cent of the native-born population of the United States were living in states other than the state of their birth. In many states, of course, the percentage of persons born in other states was much greater than the national average. For a few selected states the percentages were as follows: Michigan, 29; Delaware, 30; Kansas, 37; Florida, 47; Oklahoma, 50; California, 50; and Wyoming, 64.

It is highly important that the prospect of future migration be taken into consideration in the determination of a national educational policy. It is common knowledge that the educational opportunities afforded rural youth, and in particular the rural youth of the South, are markedly inferior to those afforded youth in most urban communities. If a large portion of the rural youth of America are going to find it necessary to leave the farm in search of economic opportunity, sound social policy would seem to require a fundamental reorganization of education in the poorer rural areas. In the first place, some means must be discovered whereby farm children can be *afforded a richer and a more extended educational experience. In* the second place, it will be necessary to give rural education a new direction, a new orientation. An educational program of the right kind can be made an effective instrument for the promotion of migration and for the better adjustment to the life of the community of persons who do not migrate.

A recent volume prepared by Carter Goodrich and others, which has been published under the title *Migration and Economic Opportunity*, subjects to detailed and minute analysis the evidence bearing on the desirability and necessity of future migration in the United States. The book is the Report of the Study of Population Redistribution, which was organized in 1934 under the auspices of the Industrial Research Department of the Wharton School of Finance and Commerce of the University of Pennsylvania. The study was instituted by the Social Science Research Council and received the support of the Rockefeller Foundation.

The general conclusion is reached that in a number of areas in the United States the pressure on economic resources is so great that migration represents the only escape from stabilized poverty for large elements in the population. The evidence indicates, too, that it will be difficult, if not impossible, for American agriculture to absorb any large part of the surplus farm population. There are four major areas in which there are serious maladjustments of population to the economic resources of the areas: the Southern Appalachians, the old cotton belt of the Southeast, the cut-over region of the Great Lakes states, and the Great Plains.

In the coal-plateau counties of the Southern Appalachians the birth-rate is excessively high and economic opportunity extremely limited. After making an analysis of the agricultural, forest, mineral, and manufacturing resources of the area in relation to possible absorption of labor, the authors of this volume reach the following conclusion, "The Southern Appalachian plateaus emerge from our analysis as a region of severe pressure of population upon resources, not likely to be fully relieved by any expansion of industrial employment that can now be foreseen." The net minimum migration which seems highly desirable from the coal plateau is placed at 340,000, or 14.5 per cent of the present population, and it is estimated that the migration of a much larger number would be necessary to relieve fully the pressure of population on the resource structure.

Because of the larger numbers involved, the maladjustment of population in the old cotton belt of the Southeast constitutes an even more serious problem. Here, too, the rate of natural increase is excessively high. With no migration and with present reproduction trends, by 1960 the population of many of the southern states would increase by more than a million. The increase in the population of the six cotton-belt states of the Southeast would be 5,393,000 and of the entire cotton belt, 10,600,000. The excessive pressure of population on the resource structure of the old cotton belt is not due alone, however, to the high birth-rates prevailing in that area. A number of factors are operating to reduce materially the population that southern farms are able to support. There has been, and is, an enormous wastage of soil resources through erosion. The cotton farmer of the Southeast finds it increasingly difficult to compete with the Southwest, where the land is both more level and more fertile and where it is possible to carry mechanization further. The development of a successful cotton-picker, which seems not at all unlikely, could scarcely have any other effect than the disruption of the cotton economy of the Southeast. The most serious threat, perhaps, *to the cotton farmer* in the Southeast is the loss of foreign markets. In 1933–34 foreign cotton production exceeded that of the United States for the first time since the Civil War.

The situation in the cotton states of the Southeast is summarized by Goodrich as follows:

> Although the farming population of the old cotton belt has, in the recent past, participated in three large-scale migrations—to the cotton areas of the Southwest, to the growing mill towns of the Piedmont, and to the northern centers of industry—the region as a whole has retained much of its surplus population. The result has been subdivision of farms, higher tenancy rates, a gradually mounting cotton surplus, and a falling level of farm income dramatized by recurrent price failures. In the face of a changing agriculture, whether the point of emphasis be mechanical cotton-picking, restricted acreage, or narrowed markets, it is this area which possesses the poorest equipment for survival, which will be able to support fewer and fewer people. Undoubtedly, therefore, industrial revival will see the resumption of internal migration.

The estimated minimum migration which is desirable for the old cotton belt is placed at two and a half million, and, in the event of the loss of world markets or the mechanization of cotton-picking, at six or seven million.

The cut-over region of the Great Lakes states is another area in which there is a serious maladjustment of population to economic resources. The seventy-six counties of northern Michigan, Wisconsin, and Minnesota, which comprise the cut-over area, contain approximately 42 per cent of the land area and 14 per cent of the population of these states. In these counties the soil is generally unsuited to agriculture. It is, in the main, thin and sandy, has poor drainage, and contains an excessive amount of peat. The farm population receives an exceedingly low income. In 1929, in more than half the counties, the gross cash farm income was less than $200 per rural-farm inhabitant. The region is rich in mineral resources, but competition and technological advance make it impossible for the mining industry to absorb the surplus population.

The fourth region subjected to detailed analysis is the Great Plains, that area extending from the Rocky Mountains to the prairies. The climate of this area is characterized by alternate periods of rainfall and drought, neither of which is predictable as to occurrence or intensity. In the past, during periods of heavier-than-usual rainfall, population has moved in and farm acreage has been increased; in periods of severe drought, a large part of the population has been in poverty and distress and many have been compelled to seek homes elsewhere. Despite the fact that some 150,000 persons moved out of the Great Plains area during the period 1930–35, there is still a population surplus. In terms of the 1930 population, the minimum reduction of population consistent with the safe use of land is estimated to be approximately 390,000 persons.

It would be a mistake, of course, to assume that the four areas described in the preceding paragraphs are the only areas in which there is, or is likely to be, a surplus population. In the Ozarks, in the coastal plains of the Southeast, and in various other places there is a maladjustment of population differing only in degree from that in the four areas described.

Nor is the probability of extensive future migration confined to certain less-favored areas. It is very unlikely that American agriculture will absorb any large fraction of the future increase of the farm population. The mechanization of agriculture and the resulting increase in productivity of farm labor make highly probable an extensive future migration from farms. From 1870 to 1930 productivity per agricultural worker increased 150 per cent. There is little reason to suppose that technological advance will not continue. After a careful analysis of the evidence, the following conclusion is reached with respect to the farm population necessary to provide the agricultural products required to meet the needs of the American people

> Thus, assuming that per capita consumption and exports remain substantially at the 1930 level, a farm population no larger than that of 1930 could meet the requirements of the greatest expected total population if the annual increase in agricultural efficiency during the next twenty-five years is hardly more than one-fourth the rate of increase from 1870 to 1930. . . And a farm population of only 2.5 millions more than that of 1935 could meet these requirements without any increase in the 1930 output per worker. Such a farm population will be

reached in five years if the surplus of births over deaths continues to remain dammed up on the farms.

The following paragraph calls attention to some of the changes in educational policy which migration would seem to require.

But the problem of fitting migrants to take a more intelligent part in the work and in the social responsibilities of the communities to which they must go strikes still deeper and demands a reorganization of the educational systems in the poorer agricultural areas. It calls in the first place for a change in orientation. There as elsewhere our existing education, whether specifically vocational or not, is largely aimed at preparation for the kind of life now lived in the immediate neighborhood. But if a large proportion of the young people must be sent out to other regions, it should be recognized that their training requires a different direction. In the second place, and even more obviously, there is an urgent need for far more thoroughgoing education than most of these communities now provide or can possibly afford. County by county the country over, there is an extraordinarily high negative correlation between income standards and social expenditures on the one hand and the birth-rate on the other. Where there are proportionately the most children to bring up, and where an unusually large fraction will have to live their working lives somewhere else, there is the least money to devote to the difficult job of their education. Thus, as Lorimer and Osborn have pointed out, ". . . . each new generation of Americans is tending to be disproportionately recruited from areas with low standards of living and inferior educational resources. The constant stream of migrants to urban areas from marginal mountain and coastal areas in the North, from the Southern Appalachian area, and from marginal cotton lands, enforced by current reproduction trends, is steadily working to counteract the educational efforts now being made in American cities." If these newcomers are to be fitted for life in the more prosperous communities, it would seem that the latter should and must bear part of the cost. Such a contribution appears the more reasonable since many of the cities are producing too few children to replace their present populations and are thus dependent on a flow of young people from the farms. It is not within our competence to suggest the educational program or the fiscal arrangements under which this help should be given, but the argument for federal aid for education in the less favored areas is one which follows directly from a consideration of the economics of migration.

TENDENCIES IN SCHOOL ENROLMENT

One of the most significant social changes of our time is the change in the age structure of the population. The declining birth-rate and the resulting decrease in the number of young children in the population are materially affecting school enrolment. Since 1930 enrolment has decreased in the kindergarten and the first five grades of the elementary school. Between 1930 and 1934 enrolment in the elementary grades decreased by 513,556. From 1931–32 to 1933–34 the increase in the number of pupils enrolled in the public schools amounted to only 158,752. During this biennium there was an actual decrease in public-school enrolment in nineteen states. By 1940 the declining child population will begin to affect high-school enrolment, and after that date we may expect a decline in the numbers attending high school unless the decline in the number of children is offset by an increased school attendance on the part of children of high-school age.

The following paragraphs, summarizing the tendencies in enrolment in both the elementary and the high school, are quoted from chapter ii, "Statistics of State School Systems, 1933–34," of the *Biennial Survey of Education in the United States: 1932–34* (United States Office of Education Bulletin Number 2, 1935).

> *Grade enrolment.*—From 1930 to 1932 there was a decrease in the number of children enrolled in the kindergarten and in the first four grades. From 1932 to 1934 there was a still further decrease in these grades, and the fifth grade for the first time showed a loss in the number of pupils enrolled. The greatest decrease in enrolment was in the kindergarten, amounting to 3 per cent from 1930 to 1932 and to 14.2 per cent from 1932 to 1934. During the four-year period 1930 to 1934 the kindergarten enrolments dropped from 723,443 in 1930 to 601,775 in 1934, or 16.8 per cent. The decrease in kindergarten enrolments was due chiefly to the fact that many cities after 1930 began to eliminate some or all of their kindergartens so as to help reduce expenses during the period when boards of education were taking drastic measures to economize, also to the fact that in some cities the entrance age to the kindergarten was raised.
>
> There was also a great decrease in first-grade enrolments. In 1934 there were 213,344, or 5.4 per cent, fewer pupils in the first grade than in 1932; and 434,067, or 10.5 per cent, fewer pupils than in 1930. This loss, as has been explained in previous reports, has been due to the falling birth-rate.
>
> The sixth grade and each of the following grades show an increase in enrolments from 1932 to 1934. The enrolment in the sixth grade increased by only 10,138 pupils, or 0.5 per cent The greatest numerical increase was in the second year high school, the increase being 152,923 The greatest percentage increase was in the postgraduate high-school courses, the increase amounting to 38.4 per cent. The next greatest increase was in the fourth year high school, amounting to 15.3 per cent. The increase in each of the high-school grades was much less from 1932 to 1934 than from 1930 to 1932 . . . .
>
> *Elementary-school enrolment.*—In 1934 there were enrolled in the public elementary schools 20,765,037 pupils This enrolment was less than that of 1932

by 370,383, and less than that of 1930 by 513,556. Up to 1930 there was an increase from biennium to biennium; after 1922 the increase became less and less pronounced. Since 1930 there has been a steady decrease in the elementary-school enrolment, the decrease from 1930 to 1932 being 0.7 per cent; and from 1932 to 1934, 1.8 per cent, and from 1930 to 1934, 2.4 per cent.

The number of girls enrolled in the elementary grades has decreased to a greater extent than the number of boys enrolled. From 1932 to 1934 the number of girls enrolled decreased from 10,328,441 to 10,119,046, or 2 per cent; and the number of boys decreased from 10,806,979 to 10,645,991, or 1.5 per cent. From 1930 to 1934 the decrease for girls amounted to 3 per cent and for boys to 1.8 per cent.

High-school enrolment.—In 1934 there were enrolled in the public high schools 5,669,156 pupils. This enrolment exceeded that for 1932 by 529,135, or 10.3 per cent; and that of 1930 by 1,269,734, or 28.9 per cent. The increase in enrolment from 1932 to 1934 was much less than the increase from 1930 to 1932, the increase from 1932 to 1934 being 10.3 per cent and from 1930 to 1932, 16.8 per cent. Boys have been enrolling at a more rapid rate than girls. From 1932 to 1934 the number of boys enrolled increased from 2,530,790 to 2,802,122, or 10.7 per cent; and the number of girls increased from 2,609,231 to 2,867,034, or 9.9 per cent. From 1930 to 1934 the number of boys enrolled increased 32.5 per cent, and the number of girls 25.5 per cent.

The proportion of the total elementary- and high-school enrolment in high school in 1934 was 21.4 per cent, as compared with 19.6 per cent in 1932 and with 17.1 per cent in 1930. The relative growth of the high school may be better indicated by calling attention to the fact that in 1900, or 34 years ago, only 3.3 per cent of the total school enrolment was in high school. A comparison by states of the percentage of public-school pupils enrolled in public high schools shows that the percentages range from 10.6 in Mississippi to 30.9 in Wisconsin. The states having 25 per cent or more of their total enrolment in high school are Wisconsin, Washington, Utah, Massachusetts, Montana, Oregon, New York, California, Idaho, Indiana, and Wyoming. The states having less than 15 per cent of their total enrolment in high school are Kentucky, New Mexico, Tennessee, Georgia, South Carolina, Arkansas, Alabama, and Mississippi.

HERE AND THERE AMONG THE SCHOOLS

Helpful suggestions for the use of projects in objectifying teaching.—The Board of Education of Chicago has published a bulletin entitled *The Craft Techniques as an Integral Part of Teaching Method*. The term "craft techniques" is used to describe useful types of constructive work. The projects which make up the major portion of the bulletin have been conducted in the Chicago schools and were written up by the teachers who developed them. Two projects, "The

School" and "The Library," were developed in Grade I. In Grade II "The Farm" and "A Public Park" were the projects employed. Projects developed for Grades IV, V, VI, and VIII are as follows: "Safety and First Aid" (Grade IV A); "Colonial Life" (Grade V A); "What We Owe to Egypt" (Grade VI); "Seven Weeks in Mexico" (Grade VIII B). The work of each project is outlined in detail, and an extensive bibliography follows the discussion of each project.

Using the museum for the teaching of geography and cultural history.—The Brooklyn (New York) Museum has recently published a booklet entitled *Handbook of Brooklyn Museum School Service*. The booklet describes in detail the attempt of the museum to make available to the schools of Greater New York many of its educational and cultural resources. A grant from the Carnegie Corporation of New York to the museum has made possible the development of this service to the schools. The "service" consists of "some 244 poster-like plates, chiefly in black-and-white line drawings, with descriptive texts as part of the plates." The plates are furnished for classroom use in the schools of Greater New York but are not for sale and are not available elsewhere The booklet, however, should prove suggestive to those communities which desire to make a more effective use of their museum resources.

A handbook of desired professional qualities.—A recent issue of the *Journal of Education* carries the following account of the efforts of Julius E. Warren, superintendent of schools at Newton, Massachusetts, to improve the efficiency of the teaching staff and the quality of instruction in the Newton public schools

> A thirty-page statement of teaching principles was distributed to five hundred Newton public-school teachers at the first general teachers' meeting of the school year. The meeting, designed to correlate educational objectives, was the first to open the Newton school calendar in many years. Superintendent Julius E Warren introduced "The Superior Teacher," a pamphlet growing out of the deliberation of a special teacher committee formed a year ago, and naming general standards of personal equipment, professional equipment, technique, and outcomes in terms of pupil activity and growth
>
> It was the original intention of the committee to accompany the handbook with a self-rating chart for each teacher. Instead, the booklet makes a comparison between the approved standards and those of the "average" and the "poor" teacher.
>
> The handbook is but one illustration of this type of educational planning

under way in Newton. Similar committee discussion led to the recent radical changes in the public-school marking system.

Teachers are also receiving a guide for the teaching of reading in the elementary grades, the work of a committee of thirty-six, and outgrowth of a study program last year which led to the discovery that one cannot set a particular time in the life of all children when they can and habitually do read well.

An example of community co-operation in meeting the problems of youth.—We are far too prone to think of education in terms of what goes on in the schools. We realize in a general way that one's education is one's total reaction to experience. We know, of course, that the ideals and attitudes of youth are being molded in large measure by the home, the community, the motion picture, the press, and the radio, but we are commonly disposed to take the position that there is little we can do about it, that these forces must be permitted to play on youth with little control and direction. Such is not, however, the attitude of the citizens of Madison, New Jersey. For a number of years they have been carrying forward an unusually significant experiment in social engineering under the direction of a Social Planning Council. The work of the council is described by Dr. Harry Arthur Wann in the *New Jersey Educational Review.*

> In Madison during the past eight years a social experiment has been conducted under the Social Planning Council. The leadership of all local institutions and agencies dealing with youth has been brought together in this council, to study the co-operative creation of a social milieu in which desirable educations can take place.
>
> The Social Planning Council is composed of two representatives from the Catholic Church, Protestant churches both colored and white, Italian clubs, American Legion, American Association of University Women, Board of Education, Women's Clubs, Library, Young Men's Christian Association, Drew University, Parent-Teacher Association, Rotary Club, Kiwanis Club, Daughters of the American Revolution, Boy Scouts and Girl Scouts, Masons, and Elks. Committees are organized of representatives of all of the agencies dealing with a particular phase of community life. Together they study the problem and attempt to solve it from a community, rather than an institutional, standpoint.
>
> A simple formula has been followed in all of the work of the Social Planning Council. Effort is made to answer three questions: (1) What are the needs? (2) How are these needs being met now? (3) How can these needs best be met? It is a formula requiring a community-wide approach to public health, recreation, leisure-time activities, guidance, and so on. It necessitates a careful evaluation of programs now in operation and a study of the best plans in effect in other communities, while the formulation of a local program is also necessary.

The work of the council may best be understood by a summary of the activities of some of its committees. . . . .

As a result of the Payne Fund Studies the commercial motion picture as a major factor in education is generally recognized. A committee of fifteen community leaders organized under the Social Planning Council to study the motion picture in relation to youth.

An intercommunity film association was formed with four neighboring towns in the same theater circuit. With the co-operation of the theater owner and the various managers, a film bulletin giving reliable previews has been published for the past three years. This bulletin appears bi-weekly and is distributed to parents, schools, churches, libraries, and other agencies. Parent discussion groups have been conducted in film study High-school classes in social studies, English, and science have introduced units on the motion picture.

A State Finer Films Federation which brings together all of the film committees of communities and clubs in New Jersey has been organized as a result of the efforts of the local group. Children's Saturday matinees have been successfully planned in the various communities by the intercommunity film committee.

A gratifying improvement has been made in the quality of films now shown in the local theater. . . . .

For two years leaders of organizations and agencies working with children have conducted a case-study conference to discuss problems of maladjustment and, co-operatively, to help make adjustments.

This conference meets once each month for two hours in the office of the supervising principal for its general meeting. Included are a Catholic priest, pastors of the Methodist Episcopal, Presbyterian, African Methodist Episcopal and colored Baptist churches, visiting teacher, child hygiene nurses, high-school principal, elementary supervisor, relief director, Settlement House director, Y.M.C.A. secretary, police officer, supervising principal of schools, dean of the School of Religious Education of Drew University, and representatives of the North Jersey Mental Hygiene Clinic and the Morris County Tuberculosis Association. Regular casework procedure is followed

The case history, school history, health history, and psychological records are presented, and a report is made by each agency which contacts the child on the experience which it has had with the case. Causes of maladjustment are determined, and a course of procedure to be followed by each agency is planned. Regular reports of progress are made at subsequent meetings, and the cases are continued until satisfactory adjustments are made

The Community Case Study Conference is not only dealing with extreme problem cases but is stressing the need for a community-wide program of prevention. Indications of a tendency toward maladjustment are discovered early, and through a co-operative approach unusual results are attained. Juvenile delinquency has practically disappeared. It is the conviction of the members of the Community Case Study Conference that this type of co-operation of existing agencies in any community can practically eliminate juvenile delinquency.

How Chicago principals would provide for over-age pupils.—The findings of a study of the opinions of Chicago principals with respect to provisions which should be made for over-age adolescents are presented in the *Chicago Principals' Club Reporter.* The principals were asked to answer the following items in a questionnaire.

> 1. Do you believe that all children over sixteen years of age belong in a social group other than that provided in the elementary school?
>
> 2. Would you include children between the ages of fifteen and sixteen in this classification?
>
> 3. Do you feel that these children could be best provided for: (*a*) in specially organized classes in the high schools? (*b*) in the prevocational schools? (*c*) in some other way?

The answers to these questions are summarized as follows:

> The qualified answers [to Question 1] suggested that the principals clearly favored or opposed the implied adjustments but objected to the inclusive character of "all children" in the statement of the question. As over 91 per cent of the replies favored a different social group other than that provided in the elementary school, it may be inferred that the majority considered chronological age as a reliable index of social and physical maturity. Only 4 per cent were opposed to the policy.
>
> Wide differences in responses were noted when those for Questions 1 and 2 were compared. Only 48 per cent favored a change for the fifteen-year-old pupils while 36 per cent were definitely opposed. Opposition was based on the possibility of better adjustment in the elementary school for the late entrant, the physically weak, and the immature children who might become further maladjusted if chronological age were the sole criterion for grouping. Consideration of the data when they were arranged in a scatter diagram showed that many who were favorable to grouping without undue emphasis upon educational achievement for those two or more years retarded were opposed to inclusion of those only one year retarded. . . . .
>
> The evidence pointed to agreement on the part of most principals that the seriously retarded adolescents need special adjustments which it would be impractical to provide in the elementary school. In Question 3 it was desired to secure a measure of the principals' opinions on the types of adjustment considered most appropriate for the retarded group. Unfortunately, the word "best" proved to be a limiting factor for some of the replies. Most principals with full cognizance of the individual differences among pupils expressed their views on the specially organized classes in high schools and the prevocational schools and, in addition, suggested new administrative or supervisory means for correcting the situation. As there were sixteen possible combinations of re-

sponses, the results will be set forth in Table I, which will give the types of stated provisions which were preferred with the frequency and percentage of the selection.

TABLE I

FREQUENCY OF THE PREFERENCES OF THE CHICAGO PRINCIPALS FOR SUGGESTED TYPES OF PROVISIONS FOR ADJUSTING THE RETARDED ADOLESCENTS

Type of Provision	Number	Per Cent
1. In favor of high-school adjustment:		
a) In specially organized classes in high schools.	78	31.6
b) In specially organized classes in high schools and prevocational schools.	38	15.4
c) In specially organized classes in high schools and some other way.	5	2.0
d) In specially organized classes in high schools, prevocational schools, and some other way.	12	4.9
e) In specially organized classes in high schools, not in prevocational schools.	10	4.0
f) In specially organized classes in high schools, not in prevocational schools or some other way	2	0.8
g) In specially organized classes in high schools and some other way, not prevocational schools	3	1.2
h) In specially organized classes in high schools and prevocational schools, no new provision	2	0.8
2. In favor of prevocational schools:		
i) In prevocational schools.	36	14.6
j) In prevocational schools and some other way	6	2.4
k) In prevocational schools, not in high schools.	7	2.8
l) In prevocational schools and some other way, not in high-school classes.	14	5.7
3. In favor of a new provision:		
m) In some other way only	16	6.5
n) In some other way, not in high-school classes	2	0.8
o) In some other way, not high or prevocational schools	12	4.9
4. No response to Question 3:		
p) No answer to method of provision preferred	4	1.6
Total	247	100.0

New courses of study in Seattle.—As a part of a program to organize the curriculum on a thirteen-year basis and to secure vertical articulation of work from the kindergarten through the high school, a number of new or revised courses of study were introduced into the schools of Seattle this autumn, according to an item by W. Virgil Smith, assistant superintendent, appearing in the *Seattle Educational*

Bulletin. A course in reading and literature has been prepared for all grades, the materials being organized around themes or centers of interest rather than around literary types. Courses in general mathematics have also been organized for Grades VII, VIII, and IX. In the field of the social studies, units have been worked out for all primary grades and for Grades V A and VI B.

Graphic illustrations of administrative procedure in the St. Louis public schools.—A booklet recently published by the Board of Education of St. Louis bears the title *Illustrations of Administrative Procedure.* The booklet contains photographic copies of the graphs, charts, outlines, and administrative forms prepared by the Board of Education for its exhibit at the meeting of the Department of Superintendence in St. Louis last February. Each graph or administrative form is accompanied by a brief interpretative explanation. In the Preface it is stated that the booklet was published in response to the many requests from all sections of the country for copies of the charts contained in the exhibit.

THE REORGANIZATION OF EDUCATION IN ILLINOIS

It would be difficult to find any state in the union more sorely in need of educational reform than the state of Illinois. It is one of the few states which does not have a state board of education; it still selects its superintendent of public instruction by popular vote; it tolerates a type of local administrative organization which is both wasteful and inefficient and which gives it the distinction of having more one-teacher schools than any other state in the nation; and it has done relatively little by way of equalizing educational opportunity among the various communities of the state.

During the past three decades numerous educational commissions have been appointed to study the educational system of the state and to make recommendations for improving it. By and large, however, the work of these commissions has been fruitless; their recommendations have gone unheeded. The truth is that Illinois has suffered from a singular lack of vigorous educational statesmanship. The teachers of the state have pressed hard for increased state aid to schools; from time to time in various quarters there has been lukewarm advocacy of a state board of education; serious but unavailing effort has been made to reform the antiquated tax system; but practically no one has had the courage to attack the most serious problem of all, *namely*, the reorganization of the system of local school administration. It is particularly gratifying, therefore, to learn that Henry Horner, the recently re-elected governor of Illinois, has announced his determination to raise the standard of Illinois schools to the highest level of educational and administrative efficiency. It is to be hoped that Governor Horner will give Illinois the type of educational leadership which it has so long and so sorely needed.

A GUIDE TO THE USE OF TESTS IN DIAGNOSIS AND INSTRUCTION

The testing movement in this country has developed to the point that a large percentage of teachers have acquired the technique of administering both aptitude and achievement tests. It is equally true, no doubt, that relatively few teachers are thoroughly acquainted with the desirable and the legitimate uses of test results. Teachers in the elementary schools who feel the need of concrete, practical suggestions for the more effective use of test results will welcome the publication of a bulletin of the Educational Records Bureau which bears the title *The Use of Test Results in Diagnosis and Instruction in the Tool Subjects*. The bulletin was prepared by Arthur E. Traxler, research associate of the Educational Records Bureau and formerly psychologist in the University High School of the University of Chicago. The purpose and organization of the bulletin are described as follows:

> Many teachers who wish to become acquainted with the best methods of using test results are no doubt prevented from doing so because they cannot find time to canvass the whole body of literature dealing with the subject. It is the purpose of this bulletin to serve such teachers by (1) indicating principles and general procedure for the use of the results of tests following the testing program; (2) outlining very briefly and concretely some of the more important suggestions for remedial treatment based on test results in certain tool subjects; and (3) presenting a selected and annotated bibliography on diagnostic and instructional uses of test results, including references to diagnostic tests and instructional work materials.

The bulletin consists of three parts. General considerations in the use of test results are discussed in the first part. Various uses of test results are listed, the principles governing the use of test results are stated and discussed, and general procedures in diagnostic and instructional uses of tests are described. In the second part suggestions for diagnosis and remedial teaching in reading, arithmetic, language usage, spelling, and handwriting are made in some detail by means of charts, which indicate types of disability, diagnostic procedures, and types of remedial treatment. The third part comprises a selected and annotated bibliography. At the beginning of the bibliography there is a series of general references on the use of test results. The rest of the references are arranged according to the tool subject with which they deal and are listed under each subject in three sections: (1) selected references on diagnosis and instruction; (2) diagnostic tests, and (3) instructional materials.

We commend this bulletin to the attention of elementary-school teachers everywhere. It may be secured from the Educational Records Bureau, 437 West Fifty-ninth Street, New York City.

WHO'S WHO IN THIS ISSUE

MARY G. KELTY, formerly supervisor of history and the social studies in the Training Department and instructor in the teaching of history at State Teachers College, Oshkosh, Wisconsin. E. W. DOLCH, assistant professor of education at the University of Illinois. WILLIAM A. MILLER, principal of the Butler School, Springfield, Illinois. FREDERICK S. BREED, associate professor of education at the University of Chicago. ALICE L. RALSTON, primary teacher in the Lincoln School, Bartlesville, Oklahoma. FRANK T. WILSON, instructor at Hunter College, New York City. WILLIAM S. GRAY, professor of education at the University of Chicago.

RECENT TRENDS IN THE SOCIAL STUDIES FOR THE MIDDLE GRADES

MARY G. KELTY
Chicago, Illinois

Among the permanent problems of middle-grade social studies are two which refuse to be relegated to the background. They *will be heard.* These two problems are: (1) What are the implications of the present trends in the curriculum offerings in the social studies? (2) How should the social studies in the middle grades differ from those in the junior high school and how should those in the junior high school differ from those in the senior high school? On the answers to these questions depend not only the kinds of experiences to be provided for children today but the permanent points of view of those children and the development of abilities needed in solving problems throughout life.

The most confusing aspect of curriculum construction is the fact that almost anything that can be inserted is of some value. Pressure groups have utilized this fact to their own advantage and to the resultant utter confusion of the elementary-school program. The question still remains: What knowledge (and experience) is of most worth from the points of view of social need, the demands of scholarship, and individual development?

In brief, four major curriculum trends can be noted: (1) the activity program, (2) fusion or integration, (3) *threads* of institutional developments, and (4) separate subjects For years education has been threshing over these same topics, but each year has brought new developments.

THE ACTIVITY PROGRAM

The place of the activity program in the primary grades has been definitely established. In the middle grades, to judge from periodical literature and courses of study published since 1930, there has been little advance. In fact, the fusion or integration program seems definitely to be superseding the activity program, except in the case of sporadic activities used for specific purposes. The possibility remains that many school systems are experimenting with middle-grade activities but are not printing their results until they come to definite conclusions. Another factor to be kept in mind is that the identical materials which were formerly designated "activities" are now often labeled "integrated units." In the junior high schools the widespread use of published materials has apparently frozen the activity movement into static form, but many progressive senior high schools are experimenting with this new type of program.

Subjects which frequently form the center of interest are (here I quote largely from the "Teachers' Lesson Unit Series" of Teachers College, Columbia University, as representative) such matters as banking (Grade VII), travel (Grade VI), the fishing industry (Grade V), constructing a garage (junior high school), corn (Grade V), street safety (kindergarten through Grade VI).

In a discussion of the advantages and the disadvantages of each of the trends, it is only fair to have in mind the movement at its best. Everyone knows into what the activity movement, at its worst, degenerated. The advantage theoretically accruing to schools using it is that the foundation of all learning is firsthand, direct experience. The enormous importance of experience as a means of securing reality and concreteness, as opposed to verbalism, and of furnishing the foundation upon which all later and more complex understandings can be built, cannot be overemphasized. If such firsthand experience is really secured through the activity program, it cannot fail to facilitate all the child's later learning. The disadvantage of the movement is that to carry it out as a practical school program on a large scale is almost impossible. The cost, in time and money and effort, of transporting entire classes almost daily to places where real, firsthand experiences can be secured is so great that it is prohibitive in the vast majority of schools. As a substitute, schools fall back on artificial representations: a cardboard street-lighting system, a mock city council, a "play" bank. Even if these substitutes are correct representations (and in many cases they are the merest travesties), they are all too likely to represent only the overt aspects and to supply little understanding of the *ideas* involved. Study habits are likely to suffer.

Even at its best, there is little or no connection in this type of program between one activity and the next, little cumulativeness of experience or continuity of viewing. School life becomes a hodgepodge and a patchwork rather than a growing, developing organism.

These pages are not the place to discuss the application of activities at the senior high school level. In the highly laudable attempt to connect instruction with life, it becomes a nice question where to draw the line between social makeshifts, which will be discarded the next year, and topics and principles of permanent value.

However, the activity program has served its purpose and has fulfilled its mission. It has demonstrated to the entire educational system the value of direct, firsthand experience in worth-while activities. All other curriculum trends show the effects of this influence; it has been added to the peculiar values of curriculums of other types. For this reason one is tempted to think of the old-time, bona fide activity program (outside the primary grades) as a phenomenon that is already passing.

THE PROGRAM OF FUSION OR INTEGRATION

The second curriculum trend is fusion or integration—terms having differing implications but often used interchangeably. Many changes in this movement have occurred in the last five years at the middle-grade level, though not so many changes are apparent at the junior high school level.

The earlier absurdities are, happily, being discarded. The extremists are coming down to earth and are recognizing the limitations of middle-grade children. Seldom does one any longer find such all-embracing units as "How People Work and Live, Especially in the United States," "How the World's Framework Influences Human Life" (both for the fourth grade) or "World Interdependence and World Indebtedness" (a single unit in the sixth grade). Let us hope that never again shall we see such a featured exhibit as one shown a few years ago at a meeting of national importance—a fourth-grade unit on "The New Deal," illustrated by a poster showing a farmer plowing under his third rows of cotton. The implications of such materials for fourth-grade children are staggering. There is still some tendency to include materials far outside the understandings or interests of little children. For example, in a widely publicized unit on cotton for the fifth grade there is an explanation of cotton futures. We are still so eager to solve all the world's problems that we must begin on them in the fourth and the fifth grades regardless of the fact that the wisest adults in the nation are struggling vainly for a solution of those same problems.

On the whole, however, the fusion or integration tendency has been resolved into an alternation of units from history with units from geography or a combination of such materials within a single unit. For example, certain units tell how a section developed from early times to now; these are followed by a straight regional-geography study of the section. One needs only to state that program as a general principle to set the specialists at work picking serious flaws in the operation of the program, but it is a general tendency today among the right wing of the progressives.

The main advantages of this program are that it necessitates the elimination of much useless detail and that it allows the points of view of history and of geography to supplement one another. The disadvantage appears when the attempt is made to decide on what principle the units are to follow one another. If the order of historical development is followed, the historians are glad to include much geographical material. The geographers, however, have been most outspoken in their criticism of the kind of geography that lends itself to such treatment. On the other hand, if a regional plan is followed, the time element in history must suffer; and, when a regional treatment immediately follows a historical treatment, there is grave danger of reading the present back into the past. Whether children so trained will be in possession of the basic points of view and methods of work of both history and geography, or either, or neither, only the future can tell. Whether this plan is superior to two separate subjects is also "on the knees of the gods."

THREADS OF INSTITUTIONAL DEVELOPMENT

A third curriculum trend is found among the center of the progressives and the left wing of the traditionalists. This tendency is to follow separate *threads* of development from the earliest beginnings to the present. This trend is growing at a tremendous rate, if one is to judge partly by the recent literature for children. To find a recent book for middle-grade children which does not treat of the development of transportation is somewhat of a novelty. Besides transportation, other threads are communication, lighting, records, time-telling, navigation, architecture, number systems, and the like. The values are obvious. All these institutions are of fundamental significance to society. They are concrete and therefore have reality in the minds of children. There can be no doubt that they should form an important part of every curriculum in the social studies.

The question is whether such materials should be organized as separate threads, to be studied one after another. If such a plan is followed in the middle grades, there can be no unified view of man's great adventure on the earth, little integration of ideas, and little coherence or cumulativeness of experience. The "old" chronological history was criticized because it showed no connection between events but presented promiscuously all those which took place at the same time. The newer thread organization makes exactly the opposite error; it follows one line of thought through logically, but it can achieve little integration of the threads. It isolates vertically, as the other isolated horizontally. In fact, it is repeating the history of the topical method.

Another disadvantage is that children do not see the broad background out of which advances in each thread came. For example, in studying almost any scientific trend, they are told over and over that a people named the Greeks made great contributions. They know little about the Greeks and do not understand why these people made so many advances. The historian immediately interjects that a people's discoveries and inventions can be understood only as a manifestation of the genius of that people and that any people can be understood only in the light of their history. The thread theory of curriculum construction does not, and because of its nature cannot, give such an understanding

Proponents of the plan claim that it is more "functional" than other plans and that such materials represent "real-life situations." Surely in real life a person may be confronted with the fact of a bridge or a boat or a road or a record, but to call the complete history of the making of bridges, boats, roads, or records more functional than a unit on "The Greeks Gave the World the Ideal of Freedom" or "How the United States Became a Great Industrial Nation" is a mere statement of opinion.

The fact that many books have been, and properly should be, written as threads does not mean that the materials of which they treat should be included in the curriculum as identical threads. American education, however, has been so accustomed to "following the book" that the appearance of these valuable materials in published form has been followed by their inclusion seriatim in the curriculum. The remedy for such a situation is obvious.

THE CURRICULUM OF SEPARATE SUBJECTS

The last of the four curriculum trends to be mentioned is the separate-subject plan. It has come a long way from its defensive, apologetic position of a few years back. It has eliminated much of its former useless detail, though much more should still be deleted. It has added material of social value, though much more still needs to be added. It has organized its materials in thought units, though much more study should be given to the development of units from one school level to the next. There is coming about a better balance between units. New viewpoints and new materials of the subjects themselves are slowly finding their way into textbooks. Teachers are at last beginning to learn the methods of work of subjects which, they thought, they had been teaching for many years. The educational world is recognizing that the disciplines themselves have been affected by the same forces for reorganization and re-evaluation which have produced the other trends mentioned.

The great value of instruction in separate subjects is the orderly, systematic, cumulative development of points of view, methods of work, and study habits. Since the separate-subject plan has taken from the activity movement the values of direct, firsthand experience, the subjects are appealing to children's interests much more than formerly. Since the fusion or integration movement has shown the value of seeing all sides of a question, history, geography, anthropology, etc., are used to supplement one another in the separate-subject curriculum. Since the threads of social institutions have been much emphasized, these worth-while materials are being included in the separate subjects in the place of much military and political history.

Separate subjects, however, still labor under the disadvantages of isolation, and they do not reinforce one another as they should. All too often the relationships are lost, or administrators go to the opposite extreme and insist on a correlation so perfect that it is forced and necessitates the substitution of unimportant details for important generalizations just because they can be tied up with other subjects.

DIFFERENTIATION OF SUBJECT MATTER FOR THE MIDDLE GRADES AND THE JUNIOR HIGH SCHOOL

Up to this point consideration has been given mainly to the units in curriculum construction. However, if the entire curriculum from the kindergarten to the college is to be examined, consideration must also be given to the question of child development. Such questions as the following must be grappled with: How should the social studies for the middle grades differ from the social studies for the junior high school? How should the social studies in the junior high school differ from those in the senior high school? Such questions cannot be answered by generalities. They can be answered only by the most meticulous analysis of the elements involved and by the application of the findings of scientific investigations. The review which follows considers only one small segment of the problem—the respects in which history for the middle grades should differ from history for the junior high school.

Years ago Henry Johnson indicated his belief, based on his rich experience, that history for young children should consist mainly of the narrative and descriptive elements.[1] Studies of children's interests and experiments in visual education have confirmed his views. Tests of the actual accomplishments of children have corroborated their practicability. One can, with a good deal of assurance of its psychological soundness, state the principle that history for middle-grade children should develop the "ability to comprehend a coherent narrative"[2] of the action comprising a unit movement and the ability to visualize clearly the overt aspects of the historical scene.

---

[1] Henry Johnson, *Teaching of History in Elementary and Secondary Schools*, pp. 44–45, 48, 49. New York. Macmillan Co., 1915.

[2] Charles Hubbard Judd, *Psychology of High-School Subjects*, p. 456. Boston: Ginn & Co., 1915.

Thus, the general groundwork is laid, and, at the same time, the limitations are indicated. This groundwork furnishes an adequate foundation for widening children's experiences and clarifying their concepts. What great progress could be made later if all middle-grade children really knew in rough outlines the main story of what had happened in the most significant unit movements!

Recent studies have shown that it is an entirely attainable purpose to begin to develop certain concepts imbedded in vocabulary terms, though development will continue throughout life. The previous experiential background is evident as the chief conditioning factor, followed closely by ability to get thought from the printed page. Programs which are now being administered will indicate with considerable accuracy within a few years even such specific matters as the general lists of terms which can be understood at each level in connection with given topics.

The geographers deserve the credit for having initiated a practicable program to develop specific skills. Many of the same skills are needed in history—picture interpretation, simple map interpretation, and simple map-making. Middle-grade teachers all over the country are now engaged in specific efforts to develop these skills, and within a few years some objective data as to results should also be procurable here.

For decades teachers of history have spoken much about the values of teaching the use of books. Until schools were equipped with something else than the textbooks in each subject, little was done. Equipment over the country as a whole is still deplorably inadequate. In the few places where books are supplied, the books are all too likely to be found in the senior high school library, to a lesser extent in the junior high school library, and to a still smaller extent in the libraries for the middle grades. Nevertheless, a few school systems now provide materials for a wide reading program in middle-grade social studies, and teachers are being supplied with definite helps toward teaching and testing knowledge of how to use the index, the table of contents, the topic headings, etc.

In recent years the development of children's powers of reasoning has been studied extensively as a part of the general study of mental development. The findings have had a marked influence on teachers' demands or expectations in the middle grades. The minimum expectation now is that the child be able "to comprehend a coherent narrative of successive events"[1] in a unit movement. As soon as this ability is satisfactorily developed, exercises can be provided in cause-and-effect reasoning, comparison, evaluation, drawing inferences, analysis and synthesis, and generalizations.

Few objective data are yet available on the general success of middle-grade children with such exercises. Tests administered on a large scale have been uniformly disappointing. In fact, the Commission on the Social Studies of the American Historical Association was so discouraged over its own test results in matters of reasoning that it drew conclusions which have brought forth widespread protests from the field. It is always dangerous to assume that any children anywhere can be given a particular test and that, if they react unfavorably, valid conclusions may be drawn about the ability of children of that age or grade level in general. Obviously, a certain minimum of uniformity in curriculum offerings must precede any uniform test. For example, if children do not know who Magellan was or what he did, no amount of reasoning on their part can discover why he followed the particular course which he did along the eastern coast of South America. Basing the reasoning test on a short printed paragraph giving the factual background has not proved satisfactory. Even a longer discussion is very different from a background which has grown out of a meaningful context and possesses rich associations. Moreover, there is a technique of reasoning to which children must be introduced; it is not a full-grown acquisition suddenly bestowed. That children chosen by random sampling do not use it proves nothing beyond that fact. Nothing is proved about what they might have done had they ever been given an inkling of the possibilities of letting their minds play with ideas.

In single school systems, however, and by scattered teachers in other systems, satisfactory beginnings are being made in the testing of reasoning in the middle grades by various devices—"new-type" or objective tests alone and in combination with greater or lesser amounts of paragraph-writing. The results vary widely, not only because of individual differences among teachers, but also because of individual differences in rate and quality of maturing of children. Teachers in the middle grades are not attempting to force this maturing process, but they are attempting to provide sufficient exercise in different forms of reasoning to stretch the powers of each child. Within a few years statistics should be available that will give a picture of the rate and the quality of progress in reasoning in general from the fourth through the sixth grade, and of particular types of reasoning as well.

---

[1] Charles Hubbard Judd, *op. cit*, p 456.

This account presents the general psychological background of what is being attempted in history in the middle grades. Inarticulate and vague as the program may be, it has nevertheless resulted in a considerable change in the offerings at the middle-grade level. Two decades ago middle-grade materials were either detailed biographies or skeleton summaries of the same kinds of materials that were used in the high schools and the upper grades. Today the materials for the middle grades are almost universally presented as meaningful, connected wholes. Appreciation of the lack of basis in children's experience has resulted in the general deletion of the study of strictly governmental problems, such as elections, and of the organization or machinery type of government, such as the makeup of boards and commissions. A growing realization of the imperfect character of the powers of abstract thinking possessed by middle-grade children has resulted in the deletion of entire topics, such as currency, banking, the tariff, and constitutional interpretation. Strictly political and military history has been subordinated to narrative of action and pictures of social life.

At the secondary level much more work has been done and much more has been written, but teachers suffer from this embarrassment of riches in that the materials are diverse and widely scattered. There is need of bringing the findings together and applying them to specific problems. For example, the objective of "training for historical research," it has been generally agreed, is outside the public-school purpose. When teachers or curriculum-workers, however, seek guidance on such specific matters as whether junior high school pupils in American history can profit from a study of the currency, they find little help.

Workers in the social-studies field could do nothing that would be of more direct assistance to teachers and pupils than to turn their attention to this problem of defining, delimiting, and characterizing the particular function of the social studies at each level of development.

CO-ORDINATING THE EFFORTS OF ALL WORKERS

In closing, it seems worth while to point out that the services of the university specialists could be utilized to a much greater extent than they have been in the past. Curriculum construction for the public schools has been considered, for the most part, the special province of workers in education, but the product has suffered because the matter has been left to one department. Within the last decade university professors have made tremendous improvements in their own instruction. Interpretation has been stressed Points of view have been emphasized. Materials have been made more meaningful. This same change in emphasis could work a revolution if it were applied to the same subjects in the public schools

Teachers have recognized the desirability of drawing generalizations and of making interpretations, but they have lacked the deep understanding of the subjects out of which such interpretations can arise. In the curriculum-building of the future, therefore, a co-ordination of forces among classroom teachers, professors of education, and subject-matter experts is urgently needed. When such a coordination of forces makes a concerted attack upon all fronts, there is hope that many of the objectives will be achieved.

THE FIRST STEP IN REMEDIAL READING

E. W. DOLCH
University of Illinois

It is invariably found that a non-reader or a poor reader has an inadequate sight vocabulary. Yet the common words which constantly recur in reading should certainly be recognized immediately if the child is to devote his attention to the more difficult, less frequent words. The first step, therefore, in remedial reading is to teach the child to recognize instantly the basic sight vocabulary. A previous article listed the 220 words which make up 50 per cent or more of the reading matter used in school.[1] The great importance of these words is shown by Table I, which gives the percentages that the basic sight words are of the total number of running words in school textbooks in four subjects.

This small number of words is of such wide usefulness largely because the list includes no nouns but is made up of the prepositions, conjunctions, adjectives, adverbs, and verbs which form the framework of expression and communication. Nouns cannot be of general use because the change from one school subject to another and from one topic in a subject to another topic necessarily means a change of nouns. The table shows a gradual change in the percentage of the basic words used from one grade to another. This change is largely due to the fact that the earlier books use more of the common adjectives and verbs.

The first step in remedial reading, the teaching of the basic sight words, can be done with surprising ease if special cards prepared for the purpose are used.[2] An illustration is a recent remedial project carried on with fourth-grade children. Of the 300 children in the grade, a fourth (about 75) knew no more than 194 of the list of 220 words. The number of words known by these 75 pupils ranged from

---

[1] E. W. Dolch, "A Basic Sight Vocabulary," *Elementary School Journal*, XXXVI (February, 1936), 456–60.

[2] Sets of these cards may be secured from the author.

194 down to only 40. The children scoring below 195 were selected for remedial work because that figure is about the average number of these words known by the children at the end of Grade III (the good readers of Grade II are found to know all the 220). The number of words known as sight words by each child was tested with a pack of cards, each card bearing one of the words printed in primer type. The cards were placed directly before the child, and he was told that the game was to call the words, giving them only "one look." He was assured that he would know all the words if he took his time but that he was to help pick out the "one-look" words from the "two-look" words. The children liked the game. The tester sat at the child's right hand and took the cards from the top of the pack at a steady rate of from one to two cards per second. Those which the child called correctly were placed in one pile and those which he missed in another pile. Thus, the basic sight words that the child actually knew by sight were separated from those that he was to learn.

TABLE I

PERCENTAGE THAT THE BASIC SIGHT VOCABULARY IS OF RUNNING WORDS IN SCHOOL TEXTBOOKS IN FOUR SUBJECTS*

Subject of Textbooks	Number *of* Books	*Grade* I	*Grade* II	*Grade* III	*Grade* IV	*Grade* V	*Grade* VI
Reading	4	70	66	65	61	59	59
Arithmetic	2	...	...	62	63	57	57
Geography	2	...	...	...	60	59	54
History	2	...	...	...	57	53	52

* Based on a thousand-word sampling of each book, including inflected forms of the basic sight words in which the sight word appears unchanged.

From this start each child was to make progress toward instant recognition of the whole basic sight vocabulary. Each child had a manila envelope containing his individual pack of cards and bearing on the outside a series of numbers, one for each practice period. In the first space was placed the number showing how many words the child had to learn and after the others the daily record of the number of words still unknown. Every day the cards were shuffled, and the child went over them with the aid of a "helper," a pupil who was a good reader chosen by the teacher to fit the particular case. Sometimes this practice was carried on in the classroom while the rest of the group worked at something else, and sometimes it was done in a separate room. The child who was the "player" read each card and handed it to the "helper." If the player was right, the helper put the card on the desk; if not, he kept the card in his hand. If the player did not know the word or if he miscalled it, the helper pronounced the right word, and the player repeated it after him. Both were eager to reduce the number of unknown words, or to "overcome the enemies," as some of them put it. When a child could call all the words correctly, he repeated the performance for the next two days to prove that he could remember them all. A final individual check was made by the tester. The few children who, at the beginning, knew less than half the 220 words were not given all the cards, but only those that they knew and a few more that were especially taught. Their packs gradually grew as new words were steadily added.

The record of what these children accomplished in from three to four weeks shows that children of fourth-grade maturity can, in a remarkably short time, correct the fundamental defect of lack of sight vocabulary. The figures in Table II (for sixty-five children instead of the original seventy-five, ten having been eliminated because of absence, removals, etc.) are those secured from individual testing by an experienced tester, not the results secured by the children themselves. They show that in all but a handful of cases this group of poor readers, after the special work, recognized instantly practically all the 220 basic sight words. A large factor in this success was the great interest of the children in reducing the number of unknown words to zero. They had a definite job that they were sure they could do, and they did it. In some schools a third of the room was working on this project, and the other pupils were as interested as were the "players" in winning out. A few extremely poor readers showed unwillingness to co-operate until given individual attention by the teacher or the tester. A few helpers had to be changed because of personal feeling.

A check on the results of this first step in remedial work was made by the use of a standard test. It is understood, of course, that no single reading test could directly measure the result of increasing the

TABLE II

BASIC SIGHT WORDS KNOWN BY SIXTY-FIVE PUPILS IN FOURTH-GRADE REMEDIAL-READING GROUP BEFORE AND AFTER FOUR WEEKS OF SPECIAL WORK

NUMBER OF KNOWN WORDS	NUMBER OF CHILDREN KNOWING WORDS	
	Before Special Work	*After Special* Work
220		50
215–19		8
210–14		3
205–9		2
200–204		
195–99		2
190–94	7	
185–89	6	
180–84	10	
175–79	6	
170–74	3	
165–69	3	
160–64	4	
155–59	6	
150–54	3	
145–49	3	
140–44	2	
135–39	1	
130–34		
125–29		
120–24	5	
115–19	1	
110–14		
105–9	1	
100–104		
95–99	2	
90–94	1	
40	1	
Total	65	65

sight vocabulary, but it was felt that such a test should give some indication of easier reading or greater reading ability. For this purpose the Gates Silent Reading Tests, Type B (Reading To Predict the Outcome of Given Events), was chosen because it comes closest to ordinary straightforward "reading for the story" such as average fourth-grade pupils are expected to be able to do. The results showed an average gain of two months in reading grade after the one month spent on the basic sight words, together with an increase in average correctness. These figures were encouraging, though they could not be taken as positive proof because of the large probable error.

The benefit to the poor readers and to the other pupils in the rooms was, however, decidedly more than can be shown by any standard test. The self-respect and the self-confidence of the poor readers increased remarkably. Their whole attitude toward school was improved. They actually tried to read their textbooks in geography and other subjects. It cannot be said that this improvement was due solely to the learning of the basic sight words, since at the same time the pupils had been given easy books to read in their room libraries. Knowing the basic sight words, however, undoubtedly enabled them to read those easy books more readily, for the 220 words made up 60 per cent or more of the running words of these books. The only cost was the cost of the cards bearing the sight words, and the only derangement of schedule was the setting-up of the practice period for players and helpers and a twenty-minute library period.

This project has shown two very important things: first, that sight-vocabulary deficiency can be corrected in a short space of time and, second, that the correction can be made with a large group of children under normal class conditions. Most work in remedial reading has been individual, and individual attention can never reach the great number of children who are in need. It can be given only to the genuine problem cases. Most poor readers, however, have simply failed to make the usual steps in reading progress when the rest of the class made them. Methods must be devised whereby they can make these steps later. The use of basic sight words on cards, as illustrated in this project, will permit a group of any size to make the first step in catching up with their fellows at any time that a school or a teacher may decide to bring poor readers up to grade.

THE PICTURE CHOICES OF PRIMARY-GRADE CHILDREN

WILLIAM A. MILLER
Butler School, Springfield, Illinois

An examination of books suitable for young children reveals an extensive use of color, wide variety of illustrative materials, and marked differences in the technique of picture-making. The use of colors and of illustrations makes the primary-grade book of today very different from its predecessor of a generation ago.

There is no agreement on the best type of illustrative technique. The choice of illustrations is probably determined by the personal ideas of the artist, the publisher's ideas of what is suitable, and the cost of reproducing the pictures. In many books for young readers half the space is devoted to illustrations. If large proportions of the space in books are to be given over to illustrations, the cost of which appreciably conditions the price of the books, it is proper to inquire which is the most suitable illustrative technique. If illustrations are to serve a useful purpose, they must appeal to children, and no one is so well qualified to state the preferences of children as they are themselves. This study was made for the purpose of determining which type of illustrative technique is preferred by primary-grade children.

The investigator chose twenty-five photographs judged to be of interest to children in the primary grades because of the content of the pictures. It was decided to use pictures which could be grouped, on the basis of their content, into the five following classifications: children in action, children and their pets, children and their toys, adult activities, and animals. Five pictures were selected in each classification.

Each photograph was copied as a line drawing, a wash drawing, a black-and-white illustration, a full-color reproduction using three primary colors, an illustration in which red was the predominant color, and an illustration in which blue was the predominant color

The red and the blue used in the full-color reproduction were the same as those used when one color was predominant. The red and the blue were of the intense, crude variety which children are thought to prefer. Using the same subject matter in each technique made possible a choice which was not influenced by the content of the picture. Each set of seven pictures with the same content but in the different techniques was mounted on a card twenty-four by thirty-six inches in size. The order in which the pictures were mounted was alternated so that the same technique did not appear in the same position on all the cards. Blanks were prepared on which to record the children's choices. Each blank also had spaces in which could be recorded the name of the child, his grade, chronological age, mental age, and intelligence quotient.

One hundred children in each of the first three grades were asked to indicate which technique in each set of pictures was preferred. The children were tested individually. The examiner said to the child: "Here are some pictures I want to show you. On each card are several pictures of the same people or things. Each group of pictures is alike except that they are made in a different way. You are to look at each group of pictures and choose the one you like best." The sets of pictures were shown to the children one at a time, and the choices were recorded. The data thus gathered are presented in the accompanying tables.

The choices of the children are given in Table I. Both the number of choices and the percentages are shown. The greatest possible number of choices for the 300 children is 7,500. Table I shows that the full-color picture was first choice in Grade I, receiving over half the total number of choices; the picture in which red was the predominant color was second, with over 18 per cent of the choices; the technique in which blue was the predominant color was third, with over 12 per cent of the total; and the photograph was fourth, with about 7 per cent of the choices. The three other techniques received such small percentages of choices that they may be considered unimportant. In Grade II the full-color technique received more than three-fifths of the choices, with the other techniques following in the same order as in Grade I. The third-grade children registered a lower percentage of choices for the full-color technique than did the children in Grade I or II. The photograph received second choice in

Grade III, having nearly a fifth of the total number of choices. For the three hundred children together, more than 55 per cent of the choices were for the full-color reproduction. This finding is in accord with the data from another study.[1] Second choice was given to the technique which featured red. The increase in the percentage of choices for the photograph registered by the third-grade children placed it in third place in the totals. The technique in which blue predominated was the fourth choice of the entire group. The remaining three techniques received only about 7 per cent of the total number of choices. The small favor shown these techniques bears out the results of previous research.[2] The preference for the photograph grew as the children were in school longer, the percentage increasing from less than 7 in Grade I to more than 10 in Grade II and to nearly 20 in Grade III. In each of the three grades red was preferred to blue. The preferences for both red and blue diminished with increase in the ages of the children These findings are somewhat at variance with those reported in another study.[3]

TABLE I

NUMBER AND PERCENTAGE OF CHOICES GIVEN TO SEVEN TYPES OF PICTURES BY THREE HUNDRED CHILDREN IN GRADES I–III

TYPE OF PICTURE	GRADE I		GRADE II		GRADE III		TOTAL	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Full color.	1,360	54.4	1,520	60.8	1,301	52.0	4,181	55.7
Red predominant.	471	18.8	305	12.2	295	11.8	1,071	14.3
Photograph.	172	6.9	257	10.3	487	19.5	916	12.2
Blue predominant. . . .	318	12.7	284	11.3	222	8.9	824	11.0
Wash drawing . . .	83	3.3	74	3.0	117	4.7	274	3.7
Line drawing.	55	2.2	37	1.5	43	1.7	135	1.8
Black and white . .	41	1.7	23	0.9	35	1.4	99	1.3
Total	2,500	100.0	2,500	100.0	2,500	100.0	7,500	100.0

---

[1] Bonnie E. Mellinger, *Children's Interests in Pictures* Teachers College Contributions to Education, No. 516. New York Teachers College, Columbia University, 1932.

[2] G. LaVerne Freeman and Ruth Sunderlin Freeman, *The Child and His Picture Book*, pp. 43–46. Chicago: Northwestern University Press, 1933

[3] Florence Eilan Bamberger, *The Effect of the Physical Make-up of a Book upon Children's Selection*. Johns Hopkins University Studies in Education, No 4 Baltimore· Johns Hopkins Press, 1922

Table II shows the choices of the two sexes in each grade. Both sexes in each grade gave the largest percentage of choices to the full-color reproduction. The third-grade boys were the only group whose choices for this technique were less than 50 per cent of the total. The percentages of girls who selected the full-color picture were larger than the corresponding percentages of boys. The photograph was more popular with boys than with girls, and the differences in each grade were significant. There was a tendency for the boys to prefer

TABLE II

NUMBER AND PERCENTAGE OF CHOICES GIVEN TO EACH OF SEVEN TYPES OF PICTURES BY BOYS AND GIRLS IN GRADES I–III

Type of Picture	Grade I		Grade II		Grade III	
	Boys (63)	Girls (37)	Boys (49)	Girls (51)	Boys (52)	Girls (48)
Full color:						
Number of choices	823	541	688	836	616	677
Percentage of choices	52.3	58.5	56.2	65.6	47.4	56.4
Rank of type	1	1	1	1	1	1
Red predominant:						
Number of choices	307	164	155	150	153	142
Percentage of choices	19.5	17.7	12.6	11.8	11.8	11.8
Rank of type	2	2	3	2	3	3
Blue predominant:						
Number of choices	202	119	162	121	128	92
Percentage of choices	12.8	12.9	13.2	9.5	9.8	7.7
Rank of type	3	3	2	3	4	4
Photograph:						
Number of choices	131	39	153	101	304	188
Percentage of choices	8.3	4.2	12.5	7.9	23.4	15.7
Rank of type	4	4	4	4	2	2
Wash drawing:						
Number of choices	60	23	39	35	63	54
Percentage of choices	3.8	2.5	3.2	2.7	4.8	4.5
Rank of type	5	6	5	5	5	5
Line drawing:						
Number of choices	30	24	19	18	16	28
Percentage of choices	1.9	2.6	1.6	1.4	1.2	2.3
Rank of type	6	5	6	6	7	6
Black and white:						
Number of choices	22	15	9	14	20	19
Percentage of choices	1.4	1.6	0.7	1.1	1.5	1.6
Rank of type	7	7	7	7	6	7

red and blue to a greater extent than the girls, but the differences were slight.

TABLE III

NUMBER AND PERCENTAGE OF CHOICES GIVEN TO EACH OF SEVEN TYPES OF PICTURES BY 300 CHILDREN IN NINE INTELLIGENCE-QUOTIENT GROUPS

TYPE OF PICTURE	INTELLIGENCE-QUOTIENT GROUP								
	Over 115 (15)	111–15 (52)	106–10 (59)	101–5 (76)	96–100 (32)	91–95 (27)	86–90 (17)	81–85 (11)	80 and Below (11)
Full color:									
Number of choices	252	781	880	1,077	456	270	188	113	164
Percentage of choices	67.2	60.1	59.7	56.7	57.0	40.0	44.2	41.1	59.6
Rank of type	1	1	1	1	1	1	1	1	1
Red predominant:									
Number of choices	33	204	174	282	114	102	84	58	20
Percentage of choices	8.8	15.7	11.8	14.8	14.2	15.1	19.8	21.1	7.3
Rank of type	4	2	2	2	2.5	3.5	2	2	3
Photograph:									
Number of choices	43	89	169	226	70	154	54	52	59
Percentage of choices	11.4	6.8	11.5	11.9	8.8	22.8	12.7	18.9	21.5
Rank of type	2	4	3	3	4	2	3	3	2
Blue predominant:									
Number of choices	37	131	147	188	114	102	53	38	14
Percentage of choices	9.8	10.1	10.0	9.9	14.2	15.1	12.5	13.8	5.1
Rank of type	3	3	4	4	2.5	3.5	4	4	4
Wash drawing:									
Number of choices	6	51	48	60	31	29	33	6	10
Percentage of choices	1.7	3.9	3.2	3.2	3.9	4.3	7.8	2.2	3.6
Rank of type	5	5	5	5	5	5	5	6	6
Line drawing:									
Number of choices	2	23	28	36	7	15	10	7	7
Percentage of choices	0.5	1.8	1.9	1.9	0.9	2.2	2.4	2.5	2.5
Rank of type	6.5	6	7	6	7	6	6	5	5
Black and white:									
Number of choices	2	21	29	31	8	3	3	1	1
Percentage of choices	0.5	1.6	2.0	1.6	1.0	0.4	0.7	0.4	0.4
Rank of type	6.5	7	6	7	6	7	7	7	7

In Table III the choices of the three hundred children are grouped according to the intelligence quotients of the pupils tested without reference to the grade in which they were classified. This table indicates that the children of lower intelligence tended to choose pictures in which red or blue was the predominant color more frequently than did children of higher intelligence. The percentage of choices for these techniques was considerably higher in the groups with intelligence quotients from 81 to 100 than in the groups with intelligence quotients from 101 to over 115. The choices of the group of children with intelligence quotients of 80 and below were an exception to this statement, but these children were doubtless an atypical group. The children with higher intelligence favored the full-color reproduction more frequently than did children with lower intelligence although the lowest intelligence-quotient group is again an exception.

In Table IV the responses are grouped according to the mental ages of the children. These data indicate that the choices for the photograph tended to increase as mental age increased. This trend is shown very definitely if the responses of the few children with mental ages of below six and over ten are discarded. The trend of choices for the full-color reproduction is not so consistent, especially if the data for the nine children ten to eleven years old are omitted. However, the percentages of choices for the full-color reproduction given by children with mental ages of seven or more were higher than the corresponding percentages for children with mental ages of less than seven. The percentage of choices for the technique in which red was predominant decreased as mental age increased. This trend is particularly apparent if the groups at the extremes, where there are relatively few children, are discarded. The most outstanding difference was the decrease in popularity, beginning with the seventh year, of the technique which featured red. The trend in the choices for the technique in which blue was predominant was in the same direction, but the differences were less important.

In order to determine whether the content of the picture made any differences in the choice of technique, the writer classified the responses of twenty-five children, selected at random from each grade, according to the groups of pictures for which the choices were made. The data supplied by these seventy-five children are presented in Table V. For the most part, the choices of techniques are distributed among the five groups in about the same proportions as those in Table I, which gives the totals of all choices. In the case of the two

TABLE IV

NUMBER AND PERCENTAGE OF CHOICES GIVEN TO EACH OF SEVEN TYPES OF PICTURES BY 300 CHILDREN IN NINE MENTAL-AGE GROUPS

TYPE OF PICTURE	MENTAL-AGE GROUP										
	10.6–11.0 (2)	10.0–10.5 (7)	9.6–9.11 (28)	9.0–9.5 (39)	8.6–8.11 (26)	8.0–8.5 (35)	7.6–7.11 (52)	7.0–7.5 (48)	6.6–6.11 (41)	6.0–6.5 (19)	Below 6.0 (3)
Full color.											
Number of choices	40	124	403	514	358	515	757	695	516	224	35
Percentage of choices	80.0	70.9	57.5	52.8	55.2	58.9	58.2	57.9	50.3	47.2	46.6
Rank of type....	1	1	1	1	1	1	1	1	1	1	1
Red predominant:											
Number of choices	4	31	72	98	84	128	182	127	201	127	17
Percentage of choices	8.0	17.7	10.3	10.1	12.9	14.6	14.0	10.6	19.6	26.7	22.6
Rank of type.	2	2	3	4	3	2	2	4	2	2	2
Photograph:											
Number of choices	3	7	117	201	108	83	138	153	67	30	9
Percentage of choices .	6.0	4.0	16.7	20.5	16.5	9.5	10.6	12.7	6.5	6.3	12.0
Rank of type....	3.5	4	2	2	2	3.5	4	2	4	4	3
Blue predominant:											
Number of choices	3	9	62	100	45	83	161	134	157	64	6
Percentage of choices .	6.0	5.1	8.9	10.3	6.9	9.5	12.5	11.3	15.3	13.5	8.0
Rank of type	3.5	3	4	3	5	3.5	3	3	3	3	4.5
Wash drawing:											
Number of choices	0	3	24	39	45	30	33	49	28	17	6
Percentage of choices ...	0.0	1.7	3.4	4.0	6.9	3.4	2.5	4.1	2.7	3.6	8.0
Rank of type .		5	5	5	4	5	5	5	6	5	4.5
Line drawing:											
Number of choices	0	1	6	16	3	24	20	29	28	6	2
Percentage of choices	0.0	0.6	0.9	1.6	0.5	2.7	1.5	2.4	2.7	1.3	2.7
Rank of type		6	7	6	7	6	6	6	6	7	6
Black and white.											
Number of choices	0	0	16	7	7	12	9	15	28	7	0
Percentage of choices .	0.0	0.0	2.2	0.7	1.1	1.4	0.5	0.9	2.7	1.5	0.0
Rank of type			6	7	6	7	7	7	6	6	

groups of pictures having as their content children and their toys and adult activities, the percentages of choices for the technique in which red was predominant are smaller than the percentages of the total given in Table I. The size of the difference and the small part played by this technique make the matter of little importance in this study. Attention is called to the choices registered for the techniques

TABLE V

DISTRIBUTION, ACCORDING TO CONTENT OF PICTURE, OF CHOICES GIVEN TO PICTURES OF SEVEN TYPES BY SEVENTY-FIVE CHILDREN SELECTED AT RANDOM

TYPE OF PICTURE	CONTENT OF PICTURE				
	Children in Action	Children and Toys	Children and Pets	Adult Activities	Animals
Full color:					
Number of choices	198	255	199	237	209
Percentage of choices	52.8	68.0	53.1	63.2	55.7
Rank of type	1	1	1	1	1
Red predominant:					
Number of choices	68	45	69	45	56
Percentage of choices	18.1	12.0	18.4	12.0	14.9
Rank of type	2	2	2	2.5	2
Photograph:					
Number of choices	40	42	40	45	39
Percentage of choices	10.7	11.2	10.7	12.0	10.4
Rank of type	4	3	4	2.5	3.5
Blue predominant:					
Number of choices	49	22	50	31	5
Percentage of choices	13.1	5.9	13.3	8.3	1.3
Rank of type	3	4	3	4	7
Wash drawing:					
Number of choices	7	4	7	8	16
Percentage of choices	1.9	1.1	1.9	2.1	4.3
Rank of type	5.5	6	5	5	5
Line drawing:					
Number of choices	7	6	5	6	11
Percentage of choices	1.9	1.6	1.3	1.6	2.9
Rank of type	5.5	5	6.5	6	6
Black and white:					
Number of choices	6	1	5	3	39
Percentage of choices	1.6	0.3	1.3	0.8	10.4
Rank of type	7	7	6.5	7	3.5

in pictures of animals: over 10 per cent were given to the technique which used black and white. In the totals in Table I this technique received but 1.3 per cent of the choices. This distribution is the only instance where the black-and-white technique received a significant percentage of the total number of choices.

To find whether the children's choices were consistent and to secure a check on the validity of the data, the writer after two months retested fifty children selected at random from Grades I and II The results of the retest are shown in Table VI. A comparison of the data in Tables I and VI indicates that the children's choices were not entirely consistent. There was an increase of about 16 in the percentage of pupils registering choices for the full-color technique In the first test the order of choices gave first rank to the full-color picture, second to the picture with red predominant, third to the photograph, and fourth to the technique in which blue was predominant In the retest the photograph and the picture with red predominant exchanged places. It should be borne in mind that the retest included only one-sixth of the children and these only in Grades I and II. The major findings of the original test were confirmed by the retest.

TABLE VI

NUMBER AND PERCENTAGE OF CHOICES GIVEN ON A RETEST TO EACH OF SEVEN TYPES OF PICTURES BY FIFTY CHILDREN IN GRADES I AND II

Type of Picture	Number of Choices	Percentage of Choices
Full color	895	71 6
Photograph	117	9 4
Red predominant	98	7 8
Blue predominant	94	7 5
Wash drawing	29	2 3
Line drawing	9	0.7
Black and white	8	0 6

CONCLUSIONS

On the basis of the data presented, the following conclusions may be drawn: (1) Full-color reproductions received more than half the total number of choices. (2) The technique in which red was predominant, the photograph, and the technique featuring blue were next highest in favor. (3) The wash drawing, the line drawing, and the black-and-white picture received insignificant percentages of the choices. (4) The preferences for the photograph increased in the higher grades. (5) The boys registered more preferences for the photograph than did the girls. (6) The preferences for the photograph tended to increase as mental age increased. (7) Data not given here indicate that the children chronologically older registered more choices for the photograph. (8) There was a tendency for children of the lower intelligence groups to choose the photograph more frequently than did children of the higher groups. (9) In all three grades red was preferred to blue. (10) There was a tendency for the boys to choose red and blue more frequently than the girls, but the differences were slight. (11) There was a tendency for the children with lower intelligence to choose red and blue. (12) The percentage of choices for red and blue tended to decrease as mental age increased. (13) Data not given here indicate that the children six years old chronologically chose red and blue more frequently than the children of any other age group except the children in the age group of 10.0–10.5. (14) The children with mental ages of seven or more years chose full-color reproductions more frequently than did children with mental ages of less than seven years. (15) The girls preferred full-color pictures more frequently than the boys. (16) There was a tendency for the children with higher intelligence to prefer the full-color reproduction.

THE DIRECT AND INDIRECT METHODS OF TEACHING THE ADDITION COMBINATIONS

FREDERICK S. BREED
University of Chicago
ALICE L. RALSTON
Lincoln School, Bartlesville, Oklahoma

This article is a report of an experiment dealing with the problem of guiding learning activity in addition. More specifically, the problem was to determine whether the addition combinations should be taught directly or indirectly, that is, whether progress is more rapid when the one hundred combinations are taught in isolation from more complex column addition or when they are taught incidentally in connection therewith.

The term "direct" will be used to refer to practice exercises involving combinations of two digits, such as $\begin{array}{r}3\\ \underline{4}\end{array}$ and $\begin{array}{r}9\\ \underline{8}\end{array}$, designed to result in the child's responding automatically with the sums of such combinations. The term "indirect" will be used to mean practice on the addition combinations within examples, such as $\begin{array}{r}93\\ 64\\ \underline{26}\end{array}$, before the combinations have been separately mastered. It seems to be generally believed by teachers and textbook-writers that the number combinations are best taught in isolation, or directly.

METHOD OF INVESTIGATION

The experiment was conducted by using comparable groups in the public schools of Tipton, Oklahoma, with pupils in the first semester of Grade II Later it was repeated in the second semester of Grade I. The pupils of the two grades were taught in different rooms by different teachers. Comparable groups in the same grade were taught in different rooms by the same teacher. None of the pupils had previously received any formal training by either of the two methods employed

Organization of comparable groups.—The factors of chronological age, general intelligence, initial knowledge of complex addition, and initial knowledge of the one hundred addition combinations were selected as the bases for organizing the pupils into groups of equal ability. Since it was found impossible to match the pupils simultaneously and satisfactorily in all the factors mentioned, it seemed best to match them separately in accordance with two of the factors at a time. The first method of matching was accordingly based on chronological age and intelligence; the second, on the two factors representing initial achievement in addition.

Chronological age and intelligence score on the Otis Group Intelligence Scale, Primary Examination, were obtained for each pupil from the school records. Initial knowledge of complex addition was determined by the Buswell-John addition test.[1] Initial knowledge of the addition combinations was determined by a test consisting of these combinations. Rate and accuracy were considered in both addition tests. In Grade I the Courtis Standard Research Test, Series A, consisting of Test I, Copying Figures, and Test II, Addition, was used to determine ability in addition in relation to the rate of writing numbers.

The pupils in each grade were paired by the first method to form an experimental and a control section. Identical training was given to these comparable groups for one month, at the end of which the pupils were tested in order to check their equality in rate of learning. After the readjustments indicated by this test had been made, two groups of thirty-three pupils each were organized in each grade; that is, thirty-three matched pairs were organized in Grade I and a like number in Grade II. In each grade the one hundred combinations were taught to one group of thirty-three pupils by the direct method and to a parallel group of the same number by the indirect method.

Table I shows the results of the matching by both methods and should be read as follows: In Grade II under the first method of matching, the mean chronological age of the direct group was 90.70 months; of the indirect group, 90.48 months. The difference in mean

---

[1] G. T. Buswell, with the co-operation of Lenore John, *Diagnostic Studies in Arithmetic*, p. 108. Supplementary Educational Monographs, No. 30. Chicago: Department of Education, University of Chicago, 1926.

TABLE I

COMPARISON OF GROUPS RECEIVING DIRECT INSTRUCTION AND GROUPS RECEIVING INDIRECT INSTRUCTION ON ADDITION COMBINATIONS

GROUP	MEAN CHRONOLOGICAL AGE IN MONTHS	MEAN OTIS GROUP INTELLIGENCE SCORE	BUSWELL-JOHN COMPLEX-ADDITION TEST		INITIAL COMBINATIONS TEST		INITIAL COURTIS TEST, MEAN SCORE	COMBINATION TEST AT END OF MONTH		COURTIS TEST AT END OF MONTH MEAN SCORE
			Mean Number Right	Mean Number of Minutes	Mean Number Right	Mean Number of Minutes		Mean Number Right	Mean Number of Minutes	
Grade II—First Method of Matching										
Direct group	90.70	42.67	10.94	38.52	68.73	24.42	.....	77.45	16.21	.
Indirect group	90.48	43.00	11.36	39.66	68.42	23.64	.	77.21	16.27	..
Difference	0.22	0.33	0.42	1.14	0.31	0.78	.	0.24	0.06	....
Probable error of difference	1.72	1.25	0.95	2.24	4.23	1.40	.	2.12	0.89	.
Grade II—Second Method of Matching										
Direct group	89.67	42.10	10.86	37.87	.	...	..	76.70	15.87	...
Indirect group	90.73	42.03	11.03	39.03		.	.	77.00	17.20	...
Difference	1.06	0.07	0.17	1.16			.	0.30	1.33	...
Probable error of difference	1.11	1.23	1.01	2.09		.		3.02	2.47	.
Grade I—First Method of Matching										
Direct group	86.55	28.76	5.18	19.63	38.45	18.79	27.91	54.18	13.27	31.48
Indirect group	86.36	28.42	5.00	19.18	39.42	16.64	27.82	56.45	14.09	31.24
Difference	0.19	0.34	0.18	0.45	0.97	2.15	0.09	2.27	0.82	0.24
Probable error of difference	2.03	1.91	0.79	1.40	5.20	1.40	2.16	4.70	1.08	1.93
Grade I—Second Method of Matching										
Direct group	86.71	28.29	4.64	18.97			.	53.89	13.90	.
Indirect group	86.00	28.46	4.14	19.21				52.89	14.23	
Difference	0.71	0.17	0.50	0.24			-	1.00	0.33	
Probable error of difference	2.50	1.71	0.77	1.04			..	5.04	1.38	

age was found to be 0.22 ± 1.72, not large enough to be significant. Similarly, compared groups in each grade were shown not to differ significantly in any of the other factors on the basis of which they were matched, either at the beginning of the experiment or at the end of the preliminary month of identical training.

Nature of the instruction.—Each class in the experiment was allotted thirty minutes each day for arithmetic during a semester, or eighteen weeks. The half-hour was divided into shorter periods for seatwork, oral work, or games. In Grade II the group taught by the direct method was assigned the period from 10:00 to 10:30; the group taught by the indirect method, the period from 10:45 to 11:15. In Grade I the order was reversed, any differences caused by the time of day at which the instruction was given being thus controlled.

In each direct group one-half the allotted time was spent in flash-card drill on the combinations, competition in writing sums of combinations, group responses to lists of combinations written on the blackboard, and primary number games. The remaining time was given to the teaching of complex addition. The rate of introducing new skills in column addition was kept identical with that in the parallel indirect group. As new combinations were introduced in a direct group, they were also introduced in the corresponding indirect group, but in the latter they were immediately used in complex addition.

In order that the amount of practice might be kept as nearly equal as possible for compared groups, each set of complex-addition exercises was as carefully planned as the direct-drill exercises with respect to repetition of combinations. The Knight-Behrens difficulty values[1] were used to apportion drill to the different combinations. In order that guessing and incorrect responses might be reduced to a minimum, each child was provided with a key or answer card for the one hundred combinations, which he was permitted to use at all times except during tests. Finally, methods of diagnostic and remedial work and of graphing individual progress were kept identical for all sections.

---

[1] Frederic B. Knight and Minnie S. Behrens, *The Learning of the 100 Addition Combinations and the 100 Subtraction Combinations*, pp. 17–20. New York: Longmans, Green & Co., 1928.

As a basis for measuring the relative effectiveness of the two methods of teaching, the three tests used as initial tests were repeated as final tests: the Buswell-John test in complex addition, the test on the one hundred addition combinations, and the Courtis test.

RESULTS

Table II presents the results of the final tests and should be read as follows: In Grade II under the first method of matching, the direct group made a mean final score of 35.21 on the Buswell-John complex-addition test in comparison with a score of 37.91 made by the indirect group. The difference between the two means was 2.70 examples in favor of the indirect group. The direct group used an average of 20.15 minutes for the work, while the indirect group used 20.24 minutes, a difference of 0.09 minutes. The mean gain, or difference between the initial and the final scores, was 24.27 for the direct group and 26.55 for the indirect group. The difference between mean gains was 2.28 in favor of the indirect group. The number of pupils who surpassed the pupils of the opposite group with whom they were matched was 12 for the direct group and 21 for the indirect group. The same information is given for the test on combinations and for the Courtis test.

Relative gains in complex addition.—The final scores of the indirect groups exceeded those of the direct groups in complex addition in all four comparisons.

A more valid comparison may be made by examining the average gain, or improvement, over initial scores. In Grade II under the first method of matching, the direct group gained an average of 24.27 examples per pupil, the indirect group, 26.55 examples. Since the difference between the mean gains (2.28) was less than four times its probable error (1.00), it cannot be said with certainty that the indirect group was superior to the direct group. Since, however, the critical ratio (the difference divided by the probable error of the difference) was found to be 2 28, there were ninety-four chances in a hundred that the true difference was greater than zero. In Grade II

TABLE II

RESULTS ON FINAL TESTS ACHIEVED BY GROUPS RECEIVING DIRECT INSTRUCTION AND BY GROUPS RECEIVING INDIRECT INSTRUCTION ON ADDITION COMBINATIONS

Group	Buswell-John Complex-Addition Test				Test on Combinations				Courtis Test	
	Mean Final Score	Mean Number of Minutes	Mean Gain	Number of Pupils Excelling Corresponding Pupils	Mean Final Score	Mean Number of Minutes	Mean Gain	Number of Pupils Excelling Corresponding Pupils	Mean Final Score	Number of Pupils Excelling Corresponding Pupils
	Grade II—First Method of Matching									
Direct group	35.21	20.15	24.27	12	95.27	7.30	26.54	15	46.55	14
Indirect group	37.91	20.24	26.55	21	97.06	8.00	28.64	16	47.66	16
Difference*	2.70	−0.09	2.28	...	1.79	−0.70	2.10	...	1.11	...
Probable error of difference	...	...	1.00	...	...	...	3.96	...	2.98	...
	Grade II—Second Method of Matching									
Direct group	35.63	15.57	24.77	10	94.90	7.30	18.20	14	45.83	15
Indirect group	37.83	20.83	26.80	18	97.00	8.16	20.00	15	46.80	12
Difference	2.20	−5.26	2.03	...	2.10	−0.86	1.80	...	0.97	...
Probable error of difference	...	...	0.95	...	...	...	2.86	...	2.13	...
	Grade I—First Method of Matching									
Direct group	29.18	24.45	24.00	13	91.42	9.64	52.97	19	44.15	14
Indirect group	30.85	22.52	25.85	17	91.42	9.27	52.00	13	46.97	18
Difference	1.67	1.93	1.85	...	0.00	0.37	−0.97	...	2.82	...
Probable error of difference	...	...	1.45	...	...	...	4.72	...	2.10	...

* The differences marked with a minus sign were in favor of the direct group; those unmarked were in favor of the indirect group.

TABLE II—*Continued*

Group	Buswell-John Complex-Addition Test				Test on Combinations				Courtis Test	
	Mean Final Score	Mean Number of Minutes	Mean Gain	Number of Pupils Excelling Corresponding Pupils	Mean Final Score	Mean Number of Minutes	Mean Gain	Number of Pupils Excelling Corresponding Pupils	Mean Final Score	Number of Pupils Excelling Corresponding Pupils
	Grade I—Second Method of Matching									
Direct group . .	27.86	23 86	23 22	10	90 50	9 50	36.64	14	42 78	9
Indirect group. .	31 36	22.50	27.22	16	90 50	9 40	37.61	13	48.89	18
Difference. . . .	3 50	1.36	4.00	. . .	0 00	0.10	0 97	. . .	6 11	. . .
Probable error of difference. .	.	.	1.62	. . .	.	. . .	4 75	. . .	2.68	. . .

under the second method of matching, the probable error of the difference between the mean gains (0.95) indicated that there were ninety-two chances in a hundred that the true difference was greater than zero.

The difference between the mean gains in Grade I under the first method of matching was in favor of the indirect group but was not great enough to establish with certainty the superiority of this group. The chances were eighty in one hundred, however, that the true difference was greater than zero. In Grade I under the second method of matching, the difference in mean gain favored the indirect group, and the chances were ninety-five in a hundred that the true difference was greater than zero.

Although the differences were not great enough to warrant a certain conclusion in any case, the results in complex addition favored the indirect group. It should also be noted that in every comparison there were more indirect pupils who exceeded the direct pupils with whom they were matched than vice versa.

Relative gains in addition combinations —The final mean scores on the addition combinations showed a difference in favor of the indirect group in Grade II under each method of matching. In Grade I the mean final scores were exactly the same for the two methods of teaching the combinations, no advantage being indicated for either.

In Grade II under the first method of matching, the difference between the mean gains in the addition-combinations test favored the indirect group, but the probable error of the difference (3.96) made it very improbable that a true difference existed between the groups. In Grade II under the second method of matching, the difference favored the indirect group. In Grade I the differences were small, one favoring the direct, the other the indirect, method.

The numbers of cases in which a pupil excelled the pupil with whom he was matched were nearly the same, the indirect group having the greater number in two cases and the direct group in two.

The differences between the results for the two methods on the addition combinations were thus found to be small and indecisive.

Comparison of final scores on the Courtis test.—The results on the Courtis test favored the indirect method in all four comparisons, but the differences in two comparisons were too small to be significant. The probable error of the difference (2.98) between the mean final scores for Grade II under the first method of matching indicated that there were fifty-nine chances in a hundred that the true difference was greater than zero. The difference was even smaller in Grade II under the second method of matching. In Grade I under the first method of matching, the difference was in favor of the indirect group, and the probable error of the difference (2.10) indicated eighty-two chances in one hundred that the true difference was greater than zero. In Grade I under the second method of matching, however, the difference between the means was fairly large and favored the indirect group. The probable error of this difference (2.68) indicated that there were ninety-six chances in a hundred that the true difference was greater than zero. In general, the evidence from the Courtis test favored the indirect instruction in direction but not in sufficient degree to establish the certainty of a difference between the methods of teaching.

Relative achievement on informal tests.—In addition to the final tests, six informal tests in complex addition were employed. These tests were designed to cover the work as it was taught. One test was administered to compared groups at the end of each period of approximately two weeks. The results of the informal tests are given in Table III and are consistent with those of the other tests. In Grade II under the first method of matching, the indirect group made a higher mean score on five of the six informal tests. In Grade

TABLE III

RESULTS ON INFORMAL TESTS IN COMPLEX ADDITION ACHIEVED BY GROUPS RECEIVING DIRECT INSTRUCTION AND GROUPS RECEIVING INDIRECT INSTRUCTION ON ADDITION COMBINATIONS

Group	Grade II				Grade I			
	First Method of Matching		Second Method of Matching		First Method of Matching		Second Method of Matching	
	Mean Score	Mean Number of Problems per Minute	Mean Score	Mean Number of Problems per Minute	Mean Score	Mean Number of Problems per Minute	Mean Score	Mean Number of Problems per Minute
Test I:								
Direct group	13.30	3.07	13.1	3.02	13.64	2.83	13.64	2.83
Indirect group	14.81	3.09	14.3	2.91	15.12	3.12	15.03	3.14
Difference*.	1.51	0.02	1.2	−0.11	1.48	0.29	1.39	0.31
Test II:								
Direct group .	11.06	1.80	11.7	1.88	12.21	1.39	11.39	2.81
Indirect group.	9.76	1.95	10.4	1.79	15.30	2.00	15.14	2.16
Difference	*−1.30*	*0.15*	*−1.3*	*−0.09*	*3.09*	*0.61*	*3.75*	*−0.65*
Test III:								
Direct group.	8.93	1.24	9.1	1.28	9.73	0.78	9.07	0.75
Indirect group	9.21	1.37	8.9	1.35	11.39	0.94	11.10	0.91
Difference	0.28	0.13	−0.2	0.07	1.66	0.16	2.03	0.16
Test IV:								
Direct group	11.81	1.37	12.0	1.34	11.82	0.97	11.90	1.02
Indirect group	13.33	1.55	12.9	1.49	12.67	1.02	12.07	1.00
Difference .	1.52	0.18	0.9	0.15	0.85	0.05	0.17	−0.02
Test V.								
Direct group	14.60	1.29	14.8	1.34	12.55	0.75	12.50	0.73
Indirect group	15.72	1.29	15.5	1.25	12.48	0.83	12.28	0.81
Difference .	1.12	0.00	0.7	−0.09	−0.07	0.08	−0.22	0.08
Test VI:								
Direct group	14.33	1.09	14.2	1.30	9.61	0.59	9.82	0.60
Indirect group	*14.69*	*1.27*	*14.5*	*1.30*	*11.24*	0.76	10.60	0.75
Difference	0.36	0.18	0.3	0.00	1.63	0.17	0.78	0.15

* The differences marked with a minus sign were in favor of the direct group, those unmarked were in favor of the indirect group

II under the second method of matching, the indirect group excelled in four of the six tests. In Grade I under the first method of matching, the indirect group excelled in five tests; under the second method of matching, in five. The differences were consistently on the side of the indirect method, but they were not large enough to establish its superiority with certainty.

Rate of writing as a factor.—The amount and the direction of the differences on these tests seemed to indicate that better results, in general, ensue from the indirect than from the direct method. These results should be interpreted in the light of the data on rate of writing figures obtained from the Courtis test. Table IV shows that the direct group in every case wrote figures more rapidly than the corresponding indirect group. Rate of writing numbers was therefore an uncontrolled factor that favored the direct groups. These data on rate of writing thus increase the degree of certainty attaching to the conclusion that the indirect method is superior to the direct.

TABLE IV

RATE OF COPYING FIGURES ON COURTIS STANDARD RESEARCH TESTS ATTAINED BY GROUPS RECEIVING DIRECT INSTRUCTION AND GROUPS RECEIVING INDIRECT INSTRUCTION ON ADDITION COMBINATIONS

Group	First Method of Matching	Second Method of Matching
Grade II:		
Direct group	73.70	74.56
Indirect group	66.51	65.76
Grade I:		
Direct group	68.70	68.25
Indirect group	65.61	63.59

Relative achievement of bright and dull pupils.—An effort was made to determine the relative effectiveness of each method of teaching with bright and with dull pupils. The pupils of compared groups were matched, insofar as possible, according to intelligence quotients, and each group was then divided into a high and a low section. Twenty-seven pairs of bright pupils and twenty-one pairs of dull pupils were organized in the two grades. The gains on the Buswell-John complex-addition test, the gains in the test on the combinations, and the final scores on the Courtis test were computed to determine which of the two methods of teaching seemed more effective with the types of pupils mentioned.

The data are presented in Table V. In the case of the bright pupils, the indirect group in Grade II gained an average of 3.0 examples more on the complex-addition test than the direct group, and in Grade I the indirect pupils gained an average of 4.2 examples more than the direct. On the combinations test the average gain of the indirect group excelled that of the direct group by 3.3 examples in Grade II and by 9.2 examples in Grade I. On the Courtis test the gain of the indirect group was greater by 8.5 points in Grade II and by 11.6 points in Grade I. The evidence points toward the superiority of the indirect method for the brighter pupils in both complex addition and addition combinations.

TABLE V

MEAN GAINS MADE BY BRIGHT AND DULL PUPILS IN GROUPS RECEIVING DIRECT INSTRUCTION AND GROUPS RECEIVING INDIRECT INSTRUCTION ON ADDITION COMBINATIONS

	BRIGHT PUPILS		DULL PUPILS	
	Direct Group	Indirect Group	Direct Group	Indirect Group
Grade II:				
Mean intelligence quotient	115	115	104	104
Mean gain on Buswell-John complex-addition test	25.0	28.0	23.6	24.0
Mean gain on combinations test	19.7	23.0	34.8	22.3
Mean final score on Courtis test	47.0	55.5	43.0	45.0
Grade I:				
Mean intelligence quotient	114	114	99	99
Mean gain on Buswell-John complex-addition test	26.8	31.0	19.7	21.2
Mean gain on combinations test	47.3	56.5	10.2	4.2
Mean final score on Courtis test	43.5	55.1	40.2	39.5

For the slower pupils the gains in the complex-addition test under the indirect method were not appreciably higher than those under the direct method. There was a difference of 0.4 of an example in Grade II and of 1.5 in Grade I. In other words, the duller pupils did not appreciably profit by the indirect method in complex addition. On the combinations test the average gain under the direct method in Grade II was 12.5 combinations greater than the gain under the indirect method. In Grade I there was a difference of 6.0 combinations in favor of the direct method. The results of the Courtis test were consistent with the results of the combinations test in Grade I, the direct group having the advantage of 0.7 of a point, but were inconsistent in Grade II. The differences in the gains of the slower pupils were all small except in the case of the addition combinations, and these were markedly on the side of the direct method in both Grades I and II.

SUMMARY

The experiment was conducted to determine whether the addition combinations can be taught more effectively in isolation or incidentally in connection with more complex addition. The first procedure is referred to as the direct method; the second, as the indirect method.

In comparison with the direct method, the indirect method of teaching the addition combinations was found, in general, to yield better results in complex addition and as good or better results on the addition combinations. With the brighter pupils the indirect method led to better results both in complex addition and in skill on the addition combinations. With the slower pupils the indirect method yielded as good results as the direct in complex addition, while the direct method yielded better results on isolated combinations. The differences between the mean scores for comparable groups were, in only a few cases, of sufficient magnitude to establish the conclusion with certainty that one method was superior to the other. In general, however, the results favored the indirect method, not only as judged by the consistency with which the differences were on the side of this method, but also as judged by the fact that the differences were large enough to make its superiority highly probable. These conclusions, based on relative improvement shown by objective tests, are further supported by the fact that the pupils using the direct method had a higher average rate of writing figures.

CORRELATIONS OF INFORMATION WITH OTHER ABILITIES AND TRAITS IN GRADE I[1]

FRANK T. WILSON
Hunter College, New York City

INTRODUCTION

This report presents a minor phase of a study of reading readiness and reading progress carried on from 1933–36 in the primary grades of the Horace Mann School of Teachers College, Columbia University.

During the school year 1933–34 a variety of tests were given to twenty-five children in Grade I of the Horace Mann School. These included tests of reading readiness; many of the Gates Reading Diagnosis Tests; some reading-achievement tests; mental-ability tests, such as the Stanford Revision of the Binet-Simon Intelligence Scale and various performance tests; certain psychological tests, for example, tests of perception and perseveration; and several measures of psychophysical and personality traits and of home background. The purpose of the study was to examine any possible relations that might exist between measurable traits and abilities and early progress in the mechanics of reading.

The children of the group came from well-to-do homes. A large percentage of the parents were professional people. The average chronological age of these pupils was 6.31; the average mental age, 7.61; and the average intelligence quotient, 120.6.

Nearly every test and measurement was administered individually, under carefully controlled conditions, by reliable persons accustomed to administering tests to young children. The co-operation of the pupils was almost invariably excellent. It is believed, for these reasons, that errors of examination were unusually low.

This report presents correlations derived from measures of information with seventy-six other measures and appraisals of the

---

[1] Prepared with the assistance of the United States Works Progress Administration, New York City, Project 65-97-295, Subproject 25.

pupils. Two tests of information were given. One was the Range of Information, Scale A, of the Van Wagenen Reading Readiness Tests. It consisted of thirty questions, such as the following:

> What does a rubber ball do when you drop it?
> What is the color of an apple before it is ripe?
> What do we call a man who raises corn and wheat?

The other was Test 6 of the Metropolitan Readiness Test by Hildreth, Griffiths, and Orleans. It consisted of sixteen sets of pictures. The children were told to mark certain pictures in successive rows of pictures as directed. For example:

> Mark what you wear on your feet.
> Mark the thing in which to ride in the air.
> Mark the thing to carry when it rains.

Correlations of these two tests were made with many of the other seventy-six measures, in particular with several reading tests, some letter tests, many mental tests, a variety of psychophysical appraisals, and a few personality measures.

The data of the study are in terms of correlations obtained by the rank-order method. To make it possible to secure the rank orders, all measures and appraisals were reduced to numerical scores. Owing to lack of facilities it was not feasible to make all the computations that were possible in the original study. A "finder" device was used to select for computation the correlations that seemed to promise significance. It is believed that through the use of this device, although it was not altogether accurate, all the high and the fairly high correlations were found. The correlations omitted were probably below .50, and most of them were probably nearer .00 than .50. The probable errors of rank-order correlation coefficients, when the number of cases is 25, range from ±.0237 for .90 to ±.1335 for .10.

The validity of many of the measures and appraisals is uncertain. Few correlations of seemingly unusual size were obtained, however, and few which were inconsistent with other correlations for the same kinds of traits and abilities as found in the complete data of the original study. The opinion of the teacher, of the school psychologist, and of other qualified persons who have studied the figures is that the results have rather high validity.

TABLE I

CORRELATIONS OF THE INFORMATION TESTS OF TWO READING-READINESS TESTS WITH VARIOUS OTHER MEASURES

MEASURE CORRELATED	CORRELATION WITH INFORMATION TESTS	
	Van Wagenen	Metropolitan
Metropolitan Readiness Test.		
Vocabulary	.74	44
Total	67	.52
Numbers	62	54
Seguin-Witmer-Sylvester Form Board, Time	59	44
Van Wagenen Reading Readiness Tests, Memory Span for Ideas	58	66
Total number of errors	.54	.40
Metropolitan Readiness Test, Information	.53	...
Healy Picture Completion Test, II	.53	.41
Gates Reading Diagnosis Tests, IX, 9, [Give] Letter Sounds.	.52	36
Total time	.50	...
Metropolitan Readiness Test, *Drawing a Man*	.49	..
Gates Primary Reading Test, Type 3, Reading of Directions, March, 1934	.49	.32
Mental age	.48	51
Van Wagenen Reading Readiness Tests, Perception of Relations	.48	...
Teacher's ranking in reading ability, November, 1933, prediction	.48	36
Gates Primary Reading Test, Type 1, Word Recognition, November, 1933	.47	17
Tapping	47	.27
Gates Reading Diagnosis Tests:		
X, 2, Recognition of Letter Sounds	43	.
XV, 1–4, Total Memory Span	.42	43
Total matching of symbols	41	.
Gates Primary Reading Test, Type 1, Word Recognition, May, 1934	41	19
Van Wagenen Reading Readiness Tests, Word Discrimination	.40	..
Total vocabulary test	39	32
Hildreth First Grade Reading Analysis Test, Total	36	34
Teacher's ranking in reading ability, May, 1934	34	22
Height	33	18
Chronological age	29	04
Gates Primary Reading Test, Type 1, Word Recognition, March, 1934	.25	07
Intelligence quotient	.23	51
Reversals, visual perception	.21	− 26
Perception, visual	20	34
Grip	13	08
Personality rating	.10	35
Reversals, auditory perception	− 05	00
Weight	− 07	− 13
Nervousness index	− 09	− 07
Undesirable behavior traits	− 16	−.14
Motor co-ordination	− 17	31
Perseveration (Maller-Elkin Attention Test)	− 18	− 01
Nutrition	−.27	−.16

TABLE I—*Continued*

Measure Correlated	Correlation with Information Tests	
	Van Wagenen	Metropolitan
Personal traits	−.42	11
Gates Primary Reading Test, Type 3, Reading of Directions, May, 1934		25
Hildreth First Grade Reading Analysis Test, Matching Words		39
Gates Reading Diagnosis Tests:		
IX, 10, Name Capital Letters		42
XI, 2, Distinguish Words		.38
XIII, 1 and 2, Write Words		.39
XV, 2, Memory Span, Letters		.40
Van Wagenen Reading Readiness Tests:		
Range of Information		.53
Vocabulary		47
Pintner-Patterson Manikin Test		39
Steadiness		42

FINDINGS

Table I shows the correlations of each information test with the other measures, arranged in order of the size of the correlations of the measures with the Van Wagenen test. The correlation between the two information tests (.53) is not particularly high.

Three correlations of the Van Wagenen information tests with other measures are above .60, namely, the Van Wagenen information test with the Metropolitan vocabulary test, .74; with the Metropolitan total score, .67; and with the Metropolitan test on numbers, .62. The correlation of the Van Wagenen test with the "Total vocabulary test" is .39. This test was made up of the two columns of the vocabulary test of the Stanford Revision of the Binet-Simon tests, twenty action-agent words from the Woodworth and Wells Association Tests,[1] and twenty-five words from the Iowa kindergarten vocabulary scale.[2] The highest correlation of reading with the

---

[1] R. S Woodworth and Frederic Lyman Wells, *Association Tests*, p. 62 Psychological Monographs, Vol XIII, No. 5. Princeton, New Jersey: Psychological Review Co., 1911.

[2] Madorah Elizabeth Smith, *An Investigation of the Development of the Sentence and the Extent of Vocabulary in Young Children*, p. 51. University of Iowa Studies in Child Welfare, Vol. III, No. 5. Iowa City, Iowa: University of Iowa, 1926.

Van Wagenen test is .49, on the Gates Primary Reading Test, Type 3, Reading of Directions. The teacher's May ranking of pupils' ability in reading correlates .34 with the Van Wagenen information test.

The only correlation above .60 for the Metropolitan information test is that with the Van Wagenen memory-span test (.66). This memory-span test requires the repetition of sentences of increasing length. The correlation of the Metropolitan information test and the teacher's May ranking of pupils' ability in reading is .22.

Table II shows the correlations of the two information tests with groups of reading tests, letter tests, mental tests, psychophysical measures, and personality appraisals.

The correlations of the two information tests with reading tests range from .07 to .49. The averages are .40 and .26; for both together, .33. These correlations are not high and indicate that, for these children, the relative extent of their information had little relation to their reading ability.

The correlations of the two information tests with knowledge of letters range from .36 to .52. The averages are .48 and .39; the average of both together is .44. Although these correlations are a little higher than those for the reading tests, they are far from high and probably indicate little direct relationship.

The correlations of the two information tests with mental tests range from .23 to .74. The averages are .50 and .47, for both together, .49. These correlations are, in the main, fairly high and, as would be expected, show the closest relations with the information tests found for any of the groups of tests.

The correlations of the two information tests with psychophysical measures range from −.27 to +.47 The averages are .08 and .13; for both, 11. The averages for personality measures are .02 and .06, for both, .04. The range is from −.42 to +.54. In both these groups the low averages and the wide ranges indicate little significance for the correlations. One trait, however, seems to have a consistent and fairly high relation, namely, total number of errors, which correlates .54 and .40, respectively, with the two information tests.

TABLE II

Correlations of the Information Tests of Two Reading-Readiness Tests with Various Other Types of Measures

Measure Correlated	Correlation with Information Tests	
	Van Wagenen	Metropolitan
Reading tests:		
Gates Primary Reading Test.		
Type 1, Word Recognition, November, 1933	.47	.17
Type 1, Word Recognition, March, 1934	.25	.07
Type 3, Reading of Directions, March, 1934	49	.32
Type 1, Word Recognition, May, 1934	41	.19
Type 3, Reading of Directions, May, 1934		.25
Hildreth First Grade Reading Analysis Test.		
Matching Words		39
Total	.36	34
Teacher's ranking in reading ability, November, 1933, prediction	48	.36
Teacher's ranking in reading ability, May, 1934	34	.22
Average	.40	26
Letter tests:		
Gates Reading Diagnosis Tests.		
IX, 9, [Give] Letter Sounds	.52	.36
IX, 10, Name Capital Letters	....	.42
X, 2, Recognition of Letter Sounds	43	....
XI, 2, Distinguish Words	.....	.38
XIII, 1 and 2, Write Words	...	.39
XV, 2, Memory Span, Letters	......	.40
Average	48	.39
Mental tests:		
Gates Reading Diagnosis Tests, XV, 1–4, Total Memory Span	42	43
Metropolitan Readiness Test:		
Vocabulary	.74	.44
Numbers	.62	.54
Information	53	...
Drawing a Man	.49	..
Van Wagenen Reading Readiness Tests.		
Range of Information	...	53
Perception of Relations	48	.....
Vocabulary	....	47
Memory Span for Ideas	58	66
Word Discrimination	.40	......
Total vocabulary test	.39	32
Healy Picture Completion Test, II	.53	.41
Pintner-Patterson Manikin Test	......	.39
Seguin-Witmer-Sylvester Form Board, Time	.59	.44
Mental age	.48	.51
Intelligence quotient	23	.51
Average	.50	47

TABLE II—*Continued*

Measure Correlated	Correlation with Information Tests	
	Van Wagenen	Metropolitan
Psychophysical measures:		
Chronological age	.29	04
Grip	13	08
Height	33	.18
Motor co-ordination	−.17	31
Nutrition	− 27	− 16
Perception	20	.34
Perseveration (Maller-Elkin Attention Test)	−.18	−.01
Steadiness	....	42
Tapping	47	.27
Weight	−.07	− 13
Average	08	.13
Personality measures		
Nervousness index	−.09	− 07
Personality rating	.10	35
Personal traits	− 42	.11
Reversals, auditory perception	−.05	.00
Reversals, visual perception	.21	− 26
Total number of errors	54	.40
Undesirable behavior traits	−.16	−.14
Average	02	06

In Table III are shown, for convenience of comparison, other correlations obtained from the complete data of the original study.

TABLE III

AVERAGE CORRELATIONS OF A GROUP OF READING TESTS WITH VARIOUS PSYCHOLOGICAL MEASURES

Measure Correlated	Correlation with Reading Tests
Mental age (Stanford-Binet)	51
Memory span (averages)	42
Information (averages)	.33
Vocabulary (composite)	.31
Performance tests (averages)	30
Perseveration (Maller-Elkin Attention Test)	23
Perception (an original test)	.22

CONCLUSION

For the twenty-five first-grade children tested, the two information tests used in the study seem not to have any particularly significant relations with reading tests or with other tests of varied character.

SELECTED REFERENCES ON TEACHER EDUCATION[1]

WILLIAM S. GRAY
University of Chicago

The references included in this bibliography were published between July 1, 1935, and June 30, 1936. These publications discuss significant issues relating to the education of teachers in elementary and secondary schools and in higher institutions. Three criteria were used in selecting from the much larger number of references published those included in this list: (1) objective analyses and statistical accounts of important aspects of teacher education; (2) comprehensive reports in the form of bulletins, yearbooks, and reports of proceedings; (3) materials which are reasonably accessible.

616. AMERICAN ASSOCIATION OF TEACHERS COLLEGES. *Fifteenth Yearbook, 1936*. Oneonta, New York: Charles W. Hunt, Secretary (State Normal School). Pp. 152.

    Includes the proceedings of the 1935 meeting of the association. The program was organized around the following general topics: "Administrative Problems," "A Study of Teaching Procedures," "A Salute to Service," and "Problems Raised by the National Survey of the Education of Teachers."

617. BAKER, FRANK E. "A Program of Guidance for Teacher-educating Institutions," *Educational Administration and Supervision*, XXI (December, 1935), 657–71.

    Describes the guidance program at the Milwaukee State Teachers College.

618. BILLINGS, NEAL. "Efforts To Evaluate the Milwaukee Teacher-training Experiment," *Educational Administration and Supervision*, XXII (April, 1936), 241–59.

    Summarizes the judgments of faculty and students concerning the value of the integrated program in educational theory and practice

---

[1] See also Item 74 (Parsons) in the list of selected references appearing in the February, 1936, number of the *Elementary School Journal*, Item 393 (Kyte) in the September, 1936, number of the *Elementary School Journal*, Item 519 (Van Patter) in the October, 1936, number of the *School Review*, Item 568 (Douglass) in the November, 1936, number of the *School Review*, and Item 626 (Webb) in the December, 1936, number of the *School Review*

619. Brink, William G. "Internship Teaching in the Professional Education of Teachers," *Educational Trends*, IV (June, 1936), 32–41.

Discusses the need for better-prepared teachers, the values derived from internship teaching, and the program of internship teaching under the direction of Northwestern University and its co-operating schools.

620. Burton, William H., and Ibanez, Dalmyra M. "Introductory Courses in Education," *Journal of Educational Research*, XXIX (November, 1935), 171–86.

Presents an analysis of the contents of seventeen introductory textbooks in education.

621 Butler, Frank A. "Prediction of Success in Practice Teaching," *Educational Administration and Supervision*, XXI (September, 1935), 448–56.

Discusses certain criteria for predicting success in practice teaching, presents guiding principles for the selection of criteria, and describes a plan for predicting success in practice teaching.

622. Campbell, Doak S., and Smith, C. Currien. *The Education of Secondary School Teachers.* Report of Joint Committee on Study of Curricula of the Southern Association of Colleges and Secondary Schools. Nashville, Tennessee: Division of Surveys and Field Studies, George Peabody College, 1936. Pp x+204

Presents the results of the committee's study of institutional aims and functions; the teaching personnel; the selection, guidance and promotion of students; the curriculum content and pattern, the training school and directed teaching, and teacher supply, demand, and certification. Includes recommendations for a program of teacher education.

623. Dawson, Mildred A. "An Attempt To Improve Lesson Planning for Teachers-in-Training," *Educational Method*, XV (February, 1936), 235–41.

Describes the procedures adopted by a director of an elementary training school to improve the types of lesson plans prepared by student teachers.

624. Eliassen, R. H., and Anderson, Earl W. "Investigations of Teacher Supply and Demand Reported in 1935," *Educational Research Bulletin*, XV (April 15, 1936), 105–10.

Discusses the major findings of twenty-six investigations of teacher supply and demand reported in 1935.

625. Elliff, Mary. *Some Relationships between Supply and Demand for Newly Trained Teachers.* Teachers College Contributions to Education, No. 654. New York: Teachers College, Columbia University, 1935 Pp. 70

Presents recommendations, based on a factual analysis of conditions in Missouri, for controlling both the number and the type of newly trained teachers.

626. ENGLEMAN, J. O. "Health Education and Health Service in Kent State University with Particular Reference to Physical Equipment," *Educational Administration and Supervision*, XXI (November, 1935), 600–606.

Discusses briefly such items as organization, administration, departmental rooms, equipment, financial support, and personnel of the health department.

627. FRAZIER, BENJAMIN W. *Education of Teachers: Selected Bibliography* (June 1, 1932, to October 1, 1935). United States Office of Education Pamphlet No. 66 (1936). Pp. vi+42.

Includes 275 annotated references selected from approximately 1,700 references published during the interval covered.

628. HALE, GENEVIEVE. "Desirable Types of Advanced Training for Teachers of English in Secondary Schools," *Educational Administration and Supervision*, XXII (January, 1936), 61–71.

Presents the results of a questionnaire study to determine the nature of the graduate work that should be taken by teachers of English to "meet the general secondary requirement of the state of California as well as to acquire a Master's degree."

629. HEILMAN, J. D., and ARMENTROUT, W. D. "The Rating of College Teachers on Ten Traits by Their Students," *Journal of Educational Psychology*, XXVII (March, 1936), 197–216.

Presents a summary of the ratings of forty-six teachers by the students in fifty classes on each of ten traits "regarded as important in the personality of a good teacher."

630. HUNT, CHARLES W. "The American Association of Teachers Colleges," *Educational Administration and Supervision*, XXI (October, 1935), 490–96.

Discusses some of the problems of the American Association of Teachers Colleges with special reference to objectives, standards, and accrediting policies.

631. JUDD, CHARLES H. "Raising the Level of the Education of Teachers," *School Review*, XLIV (April, 1936), 257–67.

Points out two limitations in current programs of teacher education, namely, the failure to stimulate students "to independent intellectual activity of a vigorous type in their professional careers" and the requirement of so-called "professional courses."

632. LINDER, ROSCOE GEORGE. *An Evaluation of the Courses in Education of a State Teachers College by Teachers in Service.* Teachers College Contributions to Education, No. 664. New York: Teachers College, Columbia University, 1935. Pp. viii+156.

Summarizes criticisms from graduates and students concerning the extent and nature of the duplication or repetition of topics in education courses and their suggestions for the better choice and treatment of topics for teachers in training.

633. LINTON, CLARENCE. "New College Plan for the Education of Teachers," *Teachers College Record*, XXXVII (January, 1936), 305–12.

Presents seven assumptions underlying the New College Plan at Teachers College, Columbia University, and discusses four of these at length.

634. LUDEMAN, W. W. "Academic and Personal Qualities of High-School Graduates Desired by Teacher-training Institutions," *Educational Administration and Supervision*, XXII (April, 1936), 282–84.

Presents lists of academic and personal qualities which, in the judgment of heads of departments of education, are most desired by teacher-training institutions Also gives the judgments of the same persons concerning present high-school graduates with respect to each quality listed.

635. MCCONNELL, ROBERT E "Book Selection for a Teachers College Library," *Educational Administration and Supervision*, XXI (October, 1935), 551–54

Describes the basis adopted in a state normal school for distributing library funds among various departments in harmony with needs

636. MCCONNELL, ROBERT E. "Speech Education for the Teacher in Training," *Elementary English Review*, XII (December, 1935), 274–76.

Discusses the purpose, nature, and scope of the speech training provided for prospective elementary-school teachers.

637. MATHEWS, C O. "The Introductory Course in Educational Measurements," *Educational Administration and Supervision*, XXI (September, 1935), 431–47.

Summarizes "the more important findings of investigators and writers in regard to the objectives and content which seem most suitable for the introductory course in educational measurements "

638. MEAD, A. R. "Using a Laboratory School for Demonstrations for Teachers in Service," *Educational Administration and Supervision*, XXII (February, 1936), 134–40.

Describes the general plan developed in the Westfield (Massachusetts) State Teachers College

639. MURPHY, A B. "Some Considerations in Making a Curriculum for Training Teachers for Secondary Schools," *Educational Administration and Supervision*, XXI (December, 1935), 686–91.

Discusses criteria for the curriculum in general for pre-professional training and for professional training

640. MYERS, ALONZO F. (Editor). *Problems in Teacher-Training.* Proceedings of the 1935 Spring Conference of the Eastern-States Association of Professional Schools for Teachers, Vol X. New York: Prentice-Hall, Inc., 1936. Pp. xx+354.

Reports the programs of the administrative and instructional divisions, of the sections for faculty members, and of the student section

641. PARSONS, RHEY BOYD. "Teacher Education in Tennessee," *School Review*, XLIII (November, 1935), 690–99.

Reports the results of a study of course offerings in education in Tennessee colleges in 1933–34.

642. PITTENGER, L. A. "Instructional Materials and Techniques in Health Education at Ball State Teachers College," *Educational Administration and Supervision*, XXI (November, 1935), 592–99.

Considers such matters as the principles underlying the health program, teacher personnel, physical provisions for the health program, the scientific basis for health, and some of the services rendered.

643. PULLIAM, ROSCOE. "The Teachers' College in the Modern World," *School and Society*, XLII (November 30, 1935), 721–26.

The inaugural address of the president of the Southern Illinois State Teachers College. Discusses the demands made on the schools in the present day compared with the demands made sixty-one years ago, when this institution was established.

644. SANGREN, PAUL V. "The Selection of Prospective Teachers," *Journal of Higher Education*, VI (November, 1935), 435–39.

Favors an accumulative record and the development of co-ordinated personnel agencies as the basis for intelligent selection and retention after admission to a teacher-training institution.

645. SHANNON, J. R "A Comparison of Three Means for Measuring Efficiency in Teaching," *Journal of Educational Research*, XXIX (March, 1936), 501–8.

Reports teaching efficiency in terms of attention scores, score-card scores, and general informal estimates of eight different groups of student teachers. Presents correlations between the various measures.

646. SMITH, DAVID EUGENE. *Challenging Problems in American Schools of Education.* The Fourth of a Series of Lectures under the Provisions of the Julius and Rosa Sachs Endowment Fund. New York: Teachers College, Columbia University, 1935. Pp. 48.

Describes certain immediate problems confronting American schools of education and discusses necessary steps in their solution.

647. SMITH, E. L. "A Critical Analysis of Rating Sheets Now in Use for Rating Student-Teachers," *Educational Administration and Supervision*, XXII (March, 1936), 179–89.

Analyzes rating sheets used by colleges and universities in the North Central Association of Colleges and Secondary Schools in the light of five criteria representing the consensus of judgment of previous writers in this field.

648. SMITH, RUBERTA N. "A Viewpoint in Preparing Teachers of Reading," *Elementary English Review*, XII (December, 1935), 271–73.

Describes some of the broader conceptions of teaching which a student should derive from his study of reading problems.

649. SMITH, T. V., and CLIFFORD, W. E. C. *Senate Committee Report on the Normal Colleges—State of Illinois.* De Kalb, Illinois: Industrial Arts Department, Northern Illinois State Teachers College, 1936.

Presents recommendations based on observations of the work in the five state teachers' colleges in Illinois.

650. "The Student Personnel Program at the Indiana State Teachers College," *Teachers College Journal*, VII (January, 1936), 19–47. Terre Haute, Indiana: Indiana State Teachers College.

Discusses the purpose and organization of the student personnel program and describes the contribution of various officers and staff members.

651 "Training and Certification of High School Teachers in West Virginia University." Preliminary Report on Curricula, Courses, and Procedures Leading to State Certification and to a Bachelor's Degree, Co-ordinated by the Senate Committee on Teacher Training and Approved by the College of Education. Morgantown, West Virginia: West Virginia University, 1936. Pp. 39.

Considers requirements for certification, teaching combinations, and courses recommended for certification in various fields.

REVIEWS AND BOOK NOTES

Making child guidance scientific.—The workers at the Psychological Clinic of the Detroit Public Schools have recently published a book[1] which is a constructive contribution to both the theory and the practice of child guidance. On the practical side the book offers a systematic aid to the diagnosis of children's problems and contains many and varied suggestions for treating them. On the theoretical side it describes the methods by which the Detroit Scale of Behavior Factors was constructed and the data on which its validity and reliability are based. The book gives also a discussion of the main intercorrelations between the factors of the scale.

By far the greater part of the book is devoted to the analysis of the sixty-six items of the scale. These items are listed under the categories of "Health and Physical Factors," "Personal Habits and Recreational Factors," "Personality and Social Factors," "Parental and Physical Factors of the Home," and "Home Atmosphere and School Factors." "As far as possible the sixty-six items are primarily basic causes of behavior difficulties. Symptoms or results of maladjustment, such as stealing, are not included since they are commonly results rather than causes" (p. 27). The scale as a whole and each item in it, except the last three, have shown statistically significant differences among groups of children (1) who have been placed in special classes for behavior-problem cases, (2) who have presented problems in the classroom, and (3) who have not presented behavior problems in the classroom.

The book will be useful either as a textbook or as a guide for practical laboratory and demonstration work in the training of clinical psychologists, visiting teachers, counselors, and others who are obliged to deal with child behavior in its broad educational and social aspects. The authors wrote primarily foı persons of some training, though the book may be used with profit by teachers and others.

> It is not expected or hoped that any chronic or aggravated psychopathic case can be diagnosed by the lay social worker or teacher by use of this scale, but rather that

---

[1] Harry J. Baker and Virginia Traphagen, *The Diagnosis and Treatment of Behavior-Problem Children*, pp. xiv+394, $2 50; *Case Record Based on the Detroit Scale of Behavior Factors*, pp. 8, $0.12. New York: Macmillan Co.

their awareness of the problem will suggest the urgent need for adequate psychiatric treatment by competent specialists.

There are many cases of behavior difficulty in rural areas or in small towns, known to visiting teachers, health nurses, and teachers, in which adequate social, psychological, and psychiatric diagnoses are not available. If such workers conscientiously study this scale as to its administration and interpretation, they should be able to use it effectively to help children who are in difficulty. There is always the danger of tactless approach to behavior factors, particularly on the latter part of the scale, dealing with the home; but these errors are not limited to workers without training. . . . The school administrator or administrative head of any diagnostic agency should find the scale useful in securing specific checks upon the detailed work of the staff. Definiteness will surely add effectiveness to a field that, regrettably, has long been characterized by its dependence upon personal opinion and subjective evaluation [pp. 385–86].

To attempt to reduce the guesswork in any field of activity is laudable. To develop a reliable scientific analysis of methods that permits an accessible record on which the diagnosis and the treatment of behavior-problem children have been based is a distinct achievement The Detroit Scale of Behavior Factors provides such a record. It still contains subjective elements and other limitations, of which its authors are well aware. The use of this scale provides no short cuts in diagnosis and performs no miracles in treatment; it adds organization and system to procedures which at best contain much that is incoherent.

HAROLD H. ANDERSON

UNIVERSITY OF ILLINOIS

An experimental study of fear in children.—Whether fear is a useful emotion in a modern world is a question for the social philosopher. Jersild and Holmes, in a monograph[1] from the Child Development Institute of Teachers College, show that children exhibit fears, what these fears are, and some facts about how they develop.

In Part I parents' records of the fears of 136 children from 3 to 97 months of age are analyzed to show the frequency of fears, sex and age differences, resemblances between children of the same family, the behavior of children when afraid, early fears, and methods used by parents to overcome fears

Part II is a study of fears in childhood as recalled by 303 young adults, tabulated according to the categories used in the first study, and a re-analysis, under these same categories, of a previous experiment in which records were made of the fears reported in interviews by 398 children from 5 to 12 years of age

The most interesting and original section of the monograph is that by Holmes, in which she reports the behavior of 105 children from 24 to 71 months of age when placed in situations which might arouse fear The situations were. (1) being left alone with a toy while the experimenter left the room; (2) walking on two boards, the second of which was so tilted that, as the child walked down it, it fell forward two inches to the floor; (3) going after a red ball into a narrow, dark passageway; (4) going past a queerly dressed stranger in order to get toys to play with; (5) walking a board, which was securely fastened two or more feet from the floor, to get toys; (6) hearing a loud noise made by striking an iron pipe with a hammer as the child was playing with a toy, the child being urged to go behind the screen and investigate the source of the noise; (7) touching a harmless snake in a box in order to get a toy; and (8) petting a large collie dog which was brought in on a leash.

---

[1] Arthur T. Jersild and Frances B. Holmes, *Children's Fears* Child Development Monographs, No. 20 New York. Teachers College, Columbia University, 1935 Pp xvi+356.

Part IV is a summary by Jersild of the other sections and a discussion, based on these experiments and others, of the nature and the prevention of childhood fears.

One striking result of these varied approaches to the study of fear in children is the agreement with regard to situations which seem to arouse fear. Common sources, as recorded by parents, by children, and by the memory of adults, are animals, darkness, high places, strangeness, and loud noises. Older children and adults also report fear of accidents, injury, and illness, and fear of failure and personal inadequacy.

The commonly accepted hypothesis that all fears are conditioned on the fear of noise and of loss of support in early infancy is not borne out by these observations. The authors say that "any novel, intense, or unexpected stimulus with which a child is unable to cope and for which he has no adequate response" (p. 325) may arouse fear. "As the child's mental capacities mature . . . . he becomes susceptible to stimuli that earlier had no effect upon him" (p. 326). Thus, the study confirms previous findings by Gesell and Jones.

From the theoretical standpoint this monograph is an important contribution which piles up additional evidence about fear. It is also useful to parents and teachers who wish to understand what is happening to make children afraid, how they may help prevent fears, and what techniques are available for overcoming those which have already developed. The final section is particularly valuable for this purpose since it describes methods of preventing and relieving fears.

ESTHER MCGINNIS

UNIVERSITY OF MINNESOTA

Factual information in the civic field possessed by children at the sixth-grade level.—During the decade ending in 1934 a considerable body of material was assembled relative to the civic information possessed by children at the sixth-grade level. Until recently this material existed only in the seven unpublished studies that were completed between 1924 and 1935. The first of these studies was made at the University of Chicago by the author of the volume under review.[1]

---

[1] William H. Burton and Others, *Children's Civic Information, 1924–1935*. Southern California Education Monographs, No. 7. Los Angeles, California: University of Southern California Press, 1936. Pp. xxii+308.

The seven studies synthesized by Professor Burton involved approximately nine thousand sixth-grade children in the cities of Chicago (Illinois), Salem (Oregon), Peoria (Illinois), Cincinnati (Ohio), Los Angeles (California), and in eight urban and thirteen rural communities of North Dakota and eight urban communities of Los Angeles County (California). In four of the studies exactly the same test or inventory of 96 items was used, and in the others an inventory of 120 items was employed, 96 of which were duplicates of those making up the test used in the four studies. The inventories were sufficiently identical to make possible reliable comparisons of results.

The first six chapters of Professor Burton's synthesis are chiefly devoted to the development of the inventory used in the studies. Inasmuch as his own study was the first of the seven to be made, it was necessary for him to construct the tools. The meticulous detail involved in the account of the way the inventory was made may be inferred from the fact that 146 pages (almost a half of the entire volume) are devoted to this story. The scientific procedure exemplified in the studies that are synthesized by Professor Burton fully justifies the prolonged discussion of the chief tool used in them.

If the reader is more interested in the results obtained from administering the inventory to almost nine thousand children in several localities than he is in the way in which the inventory was developed, he will begin reading the book on page 147 instead of page 1. In the latter half of the volume he will find material relative to the sources of the data in the seven studies, the homogeneity and comparability of the groups examined, the nature and the amount of civic information possessed by typical American groups in different regions and different economic levels and by certain racial and national groups, the growth of civic information through Grades V–VIII, sex differences in the civic information possessed by sixth-grade children, and sources from which children's civic information is derived. The data assembled in each of the seven studies bearing on each of these aspects of the general problem are synthesized and interpreted by Professor Burton. The following facts are revealed concerning some of them: (1) Children in Grade VI are not well informed on the information represented by the inventory. (2) The nature of the civic information possessed by children does not vary according to regional, economic, racial, or national groups. (3) The amount of civic information possessed by children varies considerably according to regional, economic, racial, and national groups. (4) Boys are consistently superior to girls in the amount of civic information that they possess. (5) The proportion of children's civic information which is secured through out-of-school contacts is larger than the proportion which is secured through in-school contacts. (6) The chief factors requisite to an acquisition of civic information by intermediate- and upper-grade children seem to be a decent economic status and systematic instruction in school

The studies that are synthesized in this volume collected a large amount of valuable information relative to civic education School people everywhere owe

Professor Burton a hearty vote of thanks for the painstaking care with which he has assembled and interpreted the data contained in the studies.

R. M. Tryon

A textbook that contributes to the progress of good teaching in statistics.—Paralleling the shift in emphasis in the public-school curriculum from a formal to a more functional type of learning, there has been a tendency in the teaching of statistics to move toward emphasis on the immediately practical aspects of statistical methods as contrasted with the theoretical and abstractly systematic aspects. Attention has frequently been called to the need for teaching an understanding of the purpose and the usefulness of each statistical tool, as well as an understanding of its mathematical ancestry; for developing skills in fitting a process into a matrix of practical needs, as well as skills of routine calculation.

The values of this newer emphasis have been recognized somewhat widely, and a number of textbooks in statistical methods have been written with the avowed purpose of providing treatises that would engage the interests of the non-mathematical student and make statistical analysis available to those who experience some difficulty with highly abstract quantitative thinking.

In the main, such attempts have not succeeded. Authors of textbooks in statistics typically know too much of statistics and too little of humanity. There is a strong tendency to dress up the old outlines and the old contents with a few references to practical problems and then to advertise the book as meeting the newer objectives. As in other fields, workers pay lip service to certain goals for many years before they are able to work out the concrete steps that lead surely to the realization of those goals

In the judgment of the reviewer, Sorenson's textbook in statistics[1] comes closer to the new concepts of statistics-teaching than have others. The general outline of the book is still conventional, but the author has made a conscientious effort to place emphasis on those aspects and topics of statistics which are likely to meet the needs of the learner; that is, space is given to the points which are most useful and to those which are difficult to grasp rather than to those points which round out a mathematical principle or statistical pattern. While the approach is still essentially formal, there is an attempt to make the imagery concrete, and there are liberal sections devoted to the use of techniques. The book is readable and should be acceptable to the average student in education.

The first half of the book consists of three introductory chapters; four chapters on averages and percentiles; one chapter on variability; and one on "shape," "The Normal Curve, Skewness, and Kurtosis." The second half devotes five chapters to ordinary correlation (including a good introduction to the subject), one chapter on other forms of correlation (including partial), and four chapters on error (sampling, probable error, attenuation, and reliability).

---

[1] Herbert Sorenson, *Statistics for Students of Psychology and Education* New York: McGraw-Hill Book Co., Inc., 1936. Pp viii+374. $3.50.

The author states in his Preface:

> Throughout the book emphasis has been placed upon interpretation, logical analysis, and the intelligent application of techniques, though not to the neglect of computational skills or the statistical techniques themselves Besides the development of good technical training, the major objectives in the study of statistics should be the development of a wholesome skepticism, a critical attitude, and a keen quantitative sense in situations involving statistical data [p. v].

While it is not to be thought that any textbook can in itself, apart from appropriate teaching, attain these objectives, the present book may be used with a feeling of confidence that it is helping in the desired direction.

DOUGLAS E. SCATES

BUREAU OF SCHOOL RESEARCH
CINCINNATI PUBLIC SCHOOLS

Ways to aid children to compose songs.—Creative activities in music that have received attention in modern schools may be divided into two categories: (1) the construction of instruments and (2) the composing of music. Helpful material on how to make and use instruments has been available for some time, but detailed reports of how to direct children to write music have been lacking A book recently published[1] supplies this need

The volume is divided into three sections Part I contrasts old and modern philosophies of education and discusses the nature and nurture of creative expression in general Part II describes in detail methods used in actual situations to aid children to develop creative expression in music. Chapters deal with creating songs, poetry, and melody; form in music and poetry; basic rhythmic schemes and their use; response to rhythms; and music for an Indian unit Part III gives examples of songs composed by children of different ages and levels of instruction.

The lessons described show thoughtful planning. For example, the thirteen steps taken by the teacher to help children create a tune are logically and definitely outlined. Procedures in other types of lessons are of similar quality and nature, for example, the procedures used when children record an original song on the blackboard, when they copy it in notebooks, and when the teacher writes it. In contrast to set plans are found statements indicating that a more flexible form of teaching is desirable to obtain original work of distinctive merit. For instance, the authors say that the best creative expression is sometimes overheard when children think they are unobserved. At another point the authors remark, "Inspirational work is not amenable to analysis in a series of definite steps" (p. 58). This line of thought is also held by teachers who have conducted experiments in creative work in other fields, such as literature and the graphic and plastic arts. In fact, it is generally agreed that an original creation brought about as the result of strict tutoring and dominated by the teacher is usually simple, trite, and conventional.

---

[1] Lillian Mohr Fox and L. Thomas Hopkins, *Creative School Music* Newark, New Jersey. Silver Burdett Co , 1936 Pp viii+326. $3 00.

Great works of music in the past have come into being through individual initiative; yet group composition is the method employed in the elementary school. If the songs resulting from the present experiment are typical of this form of instruction and motivation, it would seem that the greatest value of class work lies in making children conscious of the structure of music. Group work undoubtedly provides a background for the talented child who may wish to construct original melodies, and it should develop sensitiveness to musical form in pupils less gifted.

Creating music is not a new experience to children, for many composers—Mozart, Mendelssohn, and Schumann, for example—composed at an early age. Moreover, many adults today can recall making songs in childhood, although the tunes probably were not permanently recorded. Giving time in the school program to this type of musical expression, however, is novel. In any subject opinions about subject matter, administrative practices, and teaching methods differ, particularly when an offering is an innovation in the curriculum. In the findings and viewpoints presented in the study under review, certain issues of a controversial nature are apparent. For example, one may ask: Does creative music lend itself readily to formal instruction? Can a work of high merit be manufactured within a limited time? Are the best results obtained from group activity, or should individual effort be stressed? Should the teacher force his ideas upon the individual and the group? If some pupils have a keen appreciation of beauty and expressiveness in music, should they then be allowed to carry out plans in their own way? Should a simple combination of two or three tones be dignified by the title "song," and should the music period be used to expand or develop it? Do children, of their own volition, employ the sol-fa syllables when composing a song? What proportion of the time of the music recitation may profitably be spent in copying music? What phases of instruction should be dropped from the course of study in order to provide adequate opportunity for creative expression? What environment and equipment are essential to the success of a creative program?

The report by Fox and Hopkins is an attempt to solve some of these problems and, as such, is a welcome addition to literature pertaining to music in the schools. It should open new vistas to the teacher and should stimulate further research and experimentation in the creation of music in school. Usefulness of the book, however, is not confined to the discussion of creating melodies, for the material on the rhythm band, original plays, and use of music in other subjects is significant and helpful. The section treating general principles and philosophies of teaching is valuable reading for all educators and, alone, would justify publication.

The book is substantially and attractively made. The paper and binding are good, and the print is clear. Numerous examples of songs, stories, plays, and pictures made by children are included. A good table of contents and an index are commendable features.

ANNE E. PIERCE

UNIVERSITY OF IOWA

Social studies for the elementary grades.—It is probable that no curriculum was ever entirely satisfactory. Even in a static society there are elements of change, and the more alert individuals are dissatisfied with the outmoded elements and impatient with the delay that prevents the adding of new materials. While these observations are true of the curriculum in general, they are especially applicable to the field of the social studies. Several years ago Professor Harold Rugg and his associates at Columbia University proposed an answer to this problem for the junior high school grades. The volumes under consideration[1] are offered as the social-studies content for Grades III and IV.

By words and pictures *The First Book of the Earth* gives a vivid idea of the place of the earth in the universe and how it became a fit place for plants and animals. The story of the evolution of animals is well presented, and the early stages in the ascent of man are presented with equal effectiveness. *Nature Peoples* consists in a series of descriptions of the life of isolated groups. The Bushmen, Indians, Eskimos, Papuans, Baganda, and Bedouins are the principal groups whose modes of life are described. These two books are designed primarily for Grade III.

Communities of Men and *Peoples and Countries* are designed for Grade IV. The first of these volumes continues the treatment of social groups by giving descriptions of selected villages in Africa, Asia, Germany, and England. The book then gives a description of American communities and their ways of providing food, shelter, water, and government. The third part of the book consists in brief historical accounts of various areas. *Peoples and Countries* consists in geographic and social surveys of India, China, Russia, England, France, Germany, Italy, and Spain, together with a brief account of the Spanish occupation of South America.

These four books are well written and profusely illustrated. In fact, both the pictures and the maps are unusually clear, timely, and appropriate. It is, therefore, unfortunate that neither the maps nor the illustrations are listed. The reader has to hunt for, and remember the location of, a picture that he wishes to utilize a second time.

The volumes contain many elements that are usually found in textbooks in geography, but the historical elements are given scant attention. Many topics usually treated in community civics, such as planning, food and water supply, and government, are also incorporated. Natural features and the geographic environment are well described. The pupils who study these volumes carefully are bound to obtain a rather clear understanding of natural resources, man's use of these resources, and of the group co-operation necessary to utilize them.

---

[1] Harold Rugg and Louise Krueger, Man and His Changing Society. Vol. I, *The First Book of the Earth*, pp. vi+268, $0.80; Vol. II, *Nature Peoples*, pp. vi+348, $0.88; Vol. III, *Communities of Men*, pp. viii+392, $0.92; Vol. IV, *Peoples and Countries*, pp. x+482, $1.08. Boston: Ginn & Co., 1936.

The only major question which can be raised with respect to these books is that of curricular adequacy, and there is, of course, neither an authoritative nor a scientific answer to this question. Some teachers may doubt the advisability of teaching to Grades III and IV the planetary setting of the world, the existence of prehistoric animals that have no discernible connection with any extant forms of life, and the steps in the evolution of man. It may be that an entire volume, presumably the work of a whole semester, is too extensive a treatment of primitive groups. On the other hand, if the study of such groups does reveal the fundamental processes of human relationships, it may deserve even more than one semester. The answer to all questions concerning the suitability of the materials is to be given after the pupils have studied them. These volumes are carefully planned, clearly written, skilfully printed, and richly illustrated. They deserve and will receive widespread attention.

EDGAR B. WESLEY

UNIVERSITY OF MINNESOTA

Toward better English usage.—The recognition of a need for more effective school practice in correct speech and writing has evidently furnished the motive in the preparation of the new Webster practice books[1] for junior high school. The books are justified as drill manuals through an excellent variety of exercises and tests and frequent repetitions of drill on difficult points. The series progresses from a somewhat simple presentation of grammatical elements (in Book I), with emphasis on recognition of terms and an understanding of sentence parts and relationships, to a more detailed study of parts of speech (in Book III), with emphasis on forceful arrangements of sentences and use of words.

Each book is described by the author as a "self-help" book. This characterization does not mean, however, that the book is to be used as a private manual rather than a class guide. In fact, the amount of competition introduced into the books implies the author's recognition of the social motive as an impetus to improvement. Like other so-called "self-help" textbooks, these books will probably require the usual amount of teacher direction, explanation, and guidance.

The appeal which the books will make to pupils of seventh- and eighth-grade levels might have been greatly augmented by the use of attractive illustrations and a somewhat less concentrated style of presentation. If the pupil is to be brought to feel "his individual responsibility to help himself," as the publishers say in their advertisement of the series, it is important to make the challenge as inviting as possible and to utilize natural pupil interests as a means of maintaining a maximum of application to the task of self-improvement.

---

[1] Edward Harlan Webster, with the co-operation of John E. Warriner, *Good English through Practice:* Book I, pp. viii+216; Book II, pp. viii+216; Book III, pp. viii+200. Yonkers-on-Hudson, New York: World Book Co., 1936. $0.72 each.

If the reviewer judges correctly the objectives of the series, it does not rest its claim for approval upon an effort to present a comprehensive and integrated course in general English. The emphasis is obviously on grammar and good usage throughout the three books. The offerings in composition and reading are much too slender to constitute an adequate basis for instruction and practice in these fields. The plan of the books, therefore, runs contrary to the current theory that in the junior high school course of study the various English disciplines should be as completely integrated as possible in the instructional program.

ROY IVAN JOHNSON

STEPHENS COLLEGE, COLUMBIA, MISSOURI

CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY AND PRACTICE

CASTIELLO, JAIME. *A Humane Psychology of Education.* New York: Sheed & Ward, 1936. Pp. xxiv+254. $2 50

A Correlated Curriculum: A Report of the Committee on Correlation of the National Council of Teachers of English, Ruth Mary Weeks, Chairman. A Publication of the National Council of Teachers of English, English Monograph No. 5. New York: D. Appleton-Century Co., Inc , 1936. Pp. xvi+326.

DVORAK, AUGUST; MERRICK, NELLIE L.; DEALEY, WILLIAM L.; and FORD, GERTRUDE CATHERINE. *Typewriting Behavior:* Psychology Applied to Teaching and Learning Typewriting. Chicago: American Book Co., 1936. Pp. xxii+522.

Handbook of Health Education: A Guide for Teachers in Rural Schools. Edited by Ruth E. Grout Garden City, New York: Doubleday, Doran & Co., Inc., 1936. Pp. xxii+298 $1.80.

HANNA, PAUL R., and RESEARCH STAFF, WORKS PROGRESS ADMINISTRATION, Project No. 65-97-295, Subproject No. 26. *Youth Serves the Community.* New York: D. Appleton-Century Co., Inc., 1936. Pp. xiv+304. $2 00.

HARTOG, SIR PHILIP, and RHODES, E. C. *The Marks of Examiners:* Being a Comparison of Marks Allotted to Examination Scripts by Independent Examiners and Boards of Examiners, together with a Section on a Viva Voce Examination. International Institute Examinations Inquiry. London: Macmillan & Co., Ltd., 1936. Pp. xx+344.

MAXWELL, C. R., and KILZER, L. R. *High School Administration.* Garden City, New York. Doubleday, Doran & Co., Inc., 1936. Pp. x+514. $2 50.

MOELLER, HUGH C., HAMER, O. STUART, and BOWERSOX, FRED C. *Personal Problems in School Management.* New York: Newson & Co., 1936. Pp. 384. $1.60

Psychological Studies of Human Variability. Edited by Walter R. Miles Psychological Monographs, Vol. XLVII, No 2, Whole No. 212, Dodge Commemorative Number. Princeton, New Jersey: Psychological Review Co., 1936. Pp. xxxvi+416. $4.50.

WATTENBERG, WILLIAM W. *On the Educational Front:* The Reactions of Teachers Associations in New York and Chicago. New York: Columbia University Press, 1936. Pp. 218. $2.75.

BOOKS PRIMARILY FOR ELEMENTARY-SCHOOL TEACHERS AND PUPILS

EDMONSON, JAMES B., and DONDINEAU, ARTHUR. *Vocations through Problems.* New York: Macmillan Co., 1936. Pp. x+234. $0.96.

Music: Highways and Byways. Edited by Osbourne McConathy, John W. Beattie, and Russell V. Morgan. Newark, New Jersey: Silver Burdett Co., 1936. Pp. 252. $1.48.

My Fun Book To Go with Pennell and Cusack's "The Children's Own Readers": "Friends," A Primer, pp. 32; *My Work and Fun Book To Go with Pennell and Cusack's "The Children's Own Readers"*: Book II, pp. 46; Book III, pp. 40; Book IV, pp. 40. Boston: Ginn & Co., 1936 (new edition). $0.24 each.

NEWLUN, CHESTER O., and MEACHAM, LUCY H. *My Own Language:* Third Grade, pp. xii+210, $0.52; Fourth Grade, pp. xii+216, $0.52; Fifth Grade, pp. xii+236, $0.52; Sixth Grade, pp. xii+272, $0.52; Seventh Grade, pp. xiv+332, $0.56. Garden City, New York: Doubleday, Doran & Co., Inc., 1935.

PAINTER, CLARA SEARLE, and BREZLER, ANNE. *Minnesota Grows Up.* Minneapolis, Minnesota: University of Minnesota Press, 1936. Pp. 144. $1.40.

SMITH, NILA BANTON. The Unit-Activity Reading Series: *Near and Far*, pp. 320, $0.76; *"Tom's Trip" in Practice-Pad Form*, pp. 36, $0.36; *Practice-Pad To Be Used with "At Home and Away,"* pp. ii+126, $0.40; *Practice-Pad To Be Used with "In City and Country,"* pp. 96, $0.32; *Teachers' Guide for the First Year:* "Tom's Trip," "At Home and Away," "In City and Country," pp. vi+504, $1.20. Newark, New Jersey. Silver Burdett Co., 1936.

SOIFER, MARGARET K. *With Puppets, Mimes, and Shadows.* New York: Furrow Press, 1936. Pp. 132. $1.50.

STRAIN, FRANCES BRUCE. *Being Born.* New York: D. Appleton-Century Co., Inc., 1936 Pp. 144. $1.50.

Teachers' Lesson Unit Series: No. 91, *Creative Work in the Social Studies* (Grade IV) by Julia M. Harris, *Marionettes Tell the Story of Robin Hood* (Grade V) by M. Lillian Breen, and *Record Keeping and Bookmaking through the Ages* (Grade V) by Cosette Groves; No. 95, *Teaching History by Dramatization* (Grade XI) by Hazel I. Clark, *Poetry for Every Pupil* (Grade XI) by Gladys G. Gambill, and *Society for Improving Students' English* (Grade VII) by Mary Elizabeth Doolittle. New York: Teachers College, Columbia University, 1936. $0.40 each.

WADDELL, JOHN F., NEMEC, LOIS GADD, and BUSH, MAYBELL G. *Home* New York: Macmillan Co., 1936. Pp. x+126. $0.80.

PUBLICATIONS OF THE UNITED STATES OFFICE OF EDUCATION AND OTHER MATERIAL IN PAMPHLET FORM

Annual Report of the Board of Regents of the Smithsonian Institution for the Year Ending June 30, 1935. Washington: Government Printing Office, 1936. Pp. xiv+580. $1.00.

Characteristics of Good Teaching: Elementary School, pp. 4; Junior High School, pp. 8; Senior High School, pp. 8. Oakland, California: Office of the Superintendent, Oakland Public Schools, 1936.

CLEMENT, J. A. *General Analysis and General Appraisal Outlines:* For Use in the Study of Textbook Materials of Instruction for the Junior and Senior High School Areas or Levels of Teaching and Learning. Urbana, Illinois: J. A. Clement (University of Illinois), 1936. $0.25.

The Craft Techniques as an Integral Part of Teaching Method. Compiled by Louis V. Newkirk. Chicago Public Schools Bulletin. Chicago: Board of Education, 1936. Pp. 74. $0.35.

A Handbook on Teacher Tenure. Research Bulletin of the National Education Association, Vol. XIV, No. 4. Washington: Research Division of the National Education Association, 1936. Pp. 167–94. $0.25.

Meeting the Challenge of the Exceptional Child. Proceedings of the Second Conference on Education and the Exceptional Child under the Auspices of Child Research Clinic of the Woods Schools, at Langhorne, Pennsylvania, April 23, 1936. Langhorne, Pennsylvania: Child Research Clinic of the Woods Schools, 1936. Pp. 62.

NEWKIRK, LOUIS V. *Construction of Lantern Slides and Maps*, pp. 14; *Construction of Marionettes and Puppets*, pp. 16; *Hand Loom and Basket Weaving*, pp. 18; *Elementary Book and Paper Making*, pp. 10. Chicago: Board of Education, 1936.

"1000 and One": The Blue Book of Non-theatrical Films (twelfth edition). Chicago: Educational Screen, Inc. (64 East Lake Street), 1936. Pp. 152. $0.75

Our Homes. Edited by Ada Hart Arlitt. Washington: National Congress of Parents and Teachers (1201 Sixteenth Street, Northwest), 1936. Pp. 230. $0.25 (paper), $0 50 (cloth).

Recent Developments in Secondary Education in California: A Preliminary Report of the Co-operating Schools. Department of Education Bulletin No. 6. Sacramento, California: State Department of Education, 1936. Pp. vi+52.

Recent issues of the Office of Education:

- Bulletin No. 2, 1936—*Young Children in European Countries:* In the Present Economic and Social Period, by Mary Dabney Davis. Pp. x+108.
- Bulletin No. 5, 1936—*Bibliography of Research Studies in Education, 1934–1935.* Prepared in the Library Division by Ruth A. Gray. Pp. xvi+288
- Bulletin No 7, 1936—*Instruction in Hygiene in Institutions of Higher Education* by James Frederick Rogers. Pp. vi+48.
- Bulletin No. 16, 1936—*A Step Forward for Adult Civic Education.* Pp. 28.

Leaflet No. 36, 1936—*Educational Law: Selected References* compiled by Ward W. Keesecker. Pp. 16

The School in a Community Council. Report of the Committee of the New Jersey Elementary School Principals' Association, November, 1936. New Jersey Elementary Principals, Vol IX, No. 1. Hillside, New Jersey: New Jersey Elementary School Principals' Association (George H. Cowie, Jr., President, ℅ Hurden-Looker School), 1936. Pp. 68.

Studies in Articulation of High School and College. Series II: Bulletin 1, *The Anticipatory Examination:* Contribution of Anticipatory Examinations in the Articulation of High School and College by Henry C. Mills and Selection of Students for Anticipatory Examinations by Ruth E. Eckert; Bulletin 2, *Articulation in English* by Mary E. Sarbaugh; Bulletin 3, *Academic Success of Various Age and Experience Groups* by Eunice Strabel; Bulletin 4, *Patterns of High School Performance* by Ruth E. Eckert and Henry C. Mills; Bulletin 5, *Studies in Academic Motivation* by Mazie Earle Wagner; Bulletin 6, *Effect of Home Surroundings on Academic Achievement* by Mary E. Sarbaugh; Bulletin No. 7, *Differences between High School and College in Methods of Instruction* by Henry C. Mills; Bulletin 8, *The Significance of Curriculum Choice* by Ruth E. Eckert; Bulletin 9, *Reading Ability in High School and College* by Mazie Earle Wagner. University of Buffalo Studies, Vol. XIII. Buffalo, New York: University of Buffalo, 1936. Pp. 352.

"Teachers' Oaths." Compiled by the Research Division of the National Education Association. Washington: Research Division of the National Education Association, 1936. Pp. 32 (mimeographed). $0.15.

TRAXLER, ARTHUR E. *The Use of Test Results in Diagnosis and Instruction in the Tool Subjects.* Educational Records Bulletin No. 18. New York: Educational Records Bureau (437 West Fifty-ninth Street), 1936. Pp. vi+74.

WILLIAMS, R. C. *State Responsibility for the Support of Public Schools.* Research Bulletin No. 20. Des Moines, Iowa: State Department of Public Instruction, 1936. Pp. 28.

WOELLNER, ROBERT CARLTON, and WOOD, M. AURILLA. *Requirements for Teaching Certificates.* Chicago: University of Chicago Press, 1936 (revised).

THE ELEMENTARY SCHOOL JOURNAL

VOLUME XXXVII JANUARY 1937 NUMBER 5

Educational News and Editorial Comment

THE FRENCH PROGRAM FOR MASS PARTICIPATION IN LEISURE-TIME ACTIVITIES

The French government has recently established an Undersecretary for Leisure Time and Sport. Under his direction an effort is being made to provide for the youth of the nation and for workers and peasants, and unemployed as well, opportunities to engage in outdoor sports, to travel, to attend the theater, to read books—in short, to engage in various activities for the sheer joy of living. Happiness, it is said, is a new thought in Europe. The purpose of the new program is to make it possible for the masses to "find both the joy of living and the significance of their dignity." The following account of the government's new policy was prepared by Leo Lagrange, the new undersecretary, and was published in *International Pedagogical Information.*

> It has often been said that a democratic government is not able to bring into existence an organization of sport and leisure time large enough to bring pleasure to all people. This conception has been proved incorrect by institutions in Scandinavian countries and Czechoslovakia. I, too, believe that also the great democracies of the West, in which up till now individual spirit opposed the state

organization of leisure time, have the opportunity of doing valuable work in this sphere. The individual attempts are definitely not enough to secure for the masses the opportunity of caring for their mind and body.

In this sphere France is attempting something new. The aim is easy, and universally human. It is an attempt to give our youth health and happiness through sport. It aims at creating an organization which will give pleasure and offer relaxation and rest after a day's work.

This is the more necessary, since the economic conditions make extensive rest for the workingman not only possible, but frequently compulsory.

Sport activity, life in the open air are indispensable for youth.

As far as sport is concerned, one has to choose between two conceptions.

The one sees its aim in public sport, the type of sport which is limited to a fortunate few, and which frequently has as its only aim, the rearing of champions, in which the insufficient mass basis often makes it difficult to attain success. This conception is prevalent today. Its results are not always satisfactory.

The other conception aims at attracting the broad masses themselves to activity, without neglecting public sports and attainments, which also have their *raison d'être*. The largest section of French youth today is unable, for various reasons, such as lack of sports grounds and stadiums, teachers and expense, etc., to take part in any sport We intend to overcome all these difficulties. Our activity must not have as its only aim, that of giving our youth a gun to handle. We must come to them as messengers of life, not as messengers of death. And if we succeed in doing this, we serve the permanent and common interest of all civilized nations, and our own country.

We intend to create the sportlike equipment of a free nation, and to give the *youth of France simple and suitable sports grounds of which they are in need.*

The first credit which was assigned to us within the framework of the government's work-procuring program is dedicated to the realization of these aims.

Those champions who are already universally acknowledged we ask not to forget this. that only on the day when they have helped to build a youth for whom, in the words of the author André Malraux, "the time of contempt" has ended, will their work really find sense.

We invited this youth, during the past holidays, to leave the town. Thousands of young boys and girls filled the youth hostels, either as cyclists or hikers Their number has doubled itself during the last three months.

We were able to arrange with the railway companies for numerous special trains, with considerably reduced fares, to take the working people during their vacations to the mountains or to the sea. Many places on the Riviera, depopulated in former summers, for example Mentone, were now thronged with families of workers and employees, who for the first time in their life were able to enjoy their paid holidays.

We succeeded in persuading the railway company to issue a special ticket with 40 per cent reduction to all employees . . . .

These popular tickets were used in the month of August by 325,000 travelers. The railway companies have not yet published their statistics, I have therefore only few numbers at my disposal.

From 22d August to 3d September, for example, 500,000 travelers, as in comparison to the 470,000 in 1935, left the Paris P.L M. station (Paris-Lyon-Mediterranean). This comparison embraces one station and a short interval of time only; it was established after a year in which a policy of deflation had increased the crises and unemployment.

From the 1st to the 10th September the number of travelers arriving at the station of Nice was 5,000 compared with 3,000 during the corresponding period of 1935

Numerous Frenchmen who had never left their native town, and who knew their country only from memories of their geography lessons, could now in the *joy of their holiday travels experience it in its reality.*

The forty-hour week gives the working masses of our country the opportunity of leading a life which is not one of exhaustion through work, and sets us the task of shaping the newly gained free time pleasantly.

The Frenchmen who [are] inclined towards criticism and contradictions must not be burdened with the "slavery" of enjoyment. It is necessary to give them the material possibilities of enjoying themselves in a more intelligent manner *than did their fathers.* The *most unpleasant childhood memories* are *connected* with the Sunday-morning family walk. Trouped together they walk through the streets, observed by other troupes sitting on the cafe-house terraces.

This must no longer be.

As well as the pleasure of games in the stadiums, after wandering in the woods and fields, our youth should have the chance of meeting together in clubs, where *they will find books, music, comradeship, and an opportunity to exchange* ideas freely.

We are considering the possibility of organizing a Peoples Theater which would give performances throughout the country and thus stimulate mental enjoyment in even the small town. It is also planned to create traveling libraries called "Bibliobus" which would be set up on market days in the village square.

All this is the most difficult side of the work which we want to build up. It requires the largest amount of money, and the greatest devotion. Nevertheless, we shall reach our aim, furthered by the new forces coming from the trade unions, supported by authors, artists, and teachers. The League for Education and the "Leisure Committees" founded by Albert Thomas have begun this work; we want to continue it.

The task of the new undersecretary of state installed by the present French government is not primarily educational. We wish to bring *about not strength* through joy but joy itself, liberating the body and elevating the mind.

Shortly before his death, the member of the Convent Saint Just said, "Happiness is a new thought in Europe" His words still hold true. We desire that workers, peasants, and unemployed should, in their leisure time, find both the joy of living and the significance of their dignity.

DEAN RUSSELL PROPOSES A NEW CHARTER FOR TEACHER EDUCATION

Some time ago the educational authorities of New York City proposed that beginning teachers be required to meet state standards of certification. This proposal has stirred up a heated controversy over the value of professional education for teachers. Dean Gildersleeve, of Barnard College, has expressed in vigorous terms her low regard—one may almost say contempt—for the scientific study of education. She says in an article in the *American Scholar:*

> An odd situation is developing in the teaching profession, caused by changes which are being made by various states in the requirements for licenses to teach. The general tendency seems to be to discourage educated persons from teaching in our public schools; to insure having in these vitally important posts, on the whole, the less educated members of the educated class. . . . . The requirements set up by the various state authorities . . . . seem, on the whole, to be rather bad and to be getting worse. . . . . The result is that *it seems to be rapidly becoming impossible for graduates of our best liberal-arts colleges to teach in the public schools of this country.*

In his recently published annual report Dean Russell, of Teachers College, Columbia University, takes sharp issue with Dean Gildersleeve. He points out that "before we can judge wisely as to state requirements, or as to institutions proper to teacher training, we face the prior question, *What is the proper professional training for the teacher?*" When there is general agreement to the answer to this question, "all questions of institutional rivalry, certification, and requirements will fall into place." But no answer to the general problem of the proper professional education of teachers can be made, in the opinion of Dean Russell, without consideration of the following four fundamental questions:

> Given the American school as we know it today, how can we prepare teachers ably to do this work?
>
> How can we prepare teachers to teach in a changing school, the school of the future?
>
> How can we prepare teachers to guide their pupils?
>
> How can we prepare teachers properly to teach in a society where obviously not all the education is to be done in school, where various types of educational institutions must work together?

Dean Russell concludes his discussion with the recommendation that a national commission be appointed to make a comprehensive study of the whole problem of the professional education of teachers.

Thus the problem of educating the American teacher is one of great complexity and corresponding difficulty. Properly to teach in the good school as we know it today requires thorough grounding in the subject matter, usually in more than one field; and special training for teaching, directed toward an understanding of the pupil, an appreciation of the school and what it is for, and knowledge of, as well as skill in, the processes of instruction. To these must be added an appreciation of the school as a changing institution with attention to new knowledge of human nature, trends in modern society and their educational implications, and the possibilities of new schools, materials, devices, and procedures. To these, further, must be added preparation for guidance, and skill in guidance techniques, to achieve the American ideal of helping pupils to find themselves. Over and above all these comes the need, first, of understanding the entire educational process of society, the proper place of the school and the teacher, and, second, of preparation to serve in this relationship and co-operate with others.

This sort of teacher education cannot be the by-product of a course in general culture; no liberal-arts college can ever accomplish it alone; twelve, or sixteen, or eighteen, or twenty semester hours of professional work added to some other curriculum will be wholly inadequate. It will require a special institution for teacher training, the ablest students, scholarly professors, every modern facility, and wise administration. It will require more time, money, and brains.

Thus we see that the tempest aroused by the proposal rigidly to enforce in New York City the New York State requirements for teacher certification is much more than a battle between the colleges of liberal arts and the teachers' colleges. In fact under the proposed requirements a graduate of a liberal-arts college, who previously has never even thought of becoming a teacher, can meet the minimum requirements in one six-week session of a summer school. The controversy goes far deeper. It questions the plan and locus of the education of the teacher; and in comparison with this, points and credits seem small indeed.

If we want wiser standards for teacher certification, we must have wiser standards for teacher education. If we want that, we must have better teachers' colleges and colleges of education. If we want that, we must face the problem in its entirety in all its implications in the modern scene.

We need a new charter for teacher education. We need a comprehensive vision of the problem as a whole. There should be appointed a national commission, provided with ample funds, so that there would be no obstacle to complete study and report. It should have such competence and distinction as to be able to influence the authorities of the several states and stir the ambitions of our people.

THE LOUISIANA PROGRAM OF CURRICULUM DEVELOPMENT

"Handbook in Curriculum Development for Louisiana Schools" is the title of a bulletin recently published by the Teachers College of the Louisiana State University. This handbook of some 165 pages is designed to suggest a plan and to provide the essential materials for a co-operative program of curriculum study in the state of Louisiana. The plan of organization contemplates an attack on curriculum problems by the entire teaching staff of the state. There are to be four types of study units: (1) the school unit, to consist of the faculty of each school or of a number of schools acting in co-operation; (2) the parish unit, to be composed of two representatives of each school unit; (3) the district unit, consisting of at least two representatives from each parish unit; and (4) the state unit, to be composed of the state director of the curriculum, the state consultant, and at least three representatives of each district unit. The major part of the bulletin is devoted to an exposition of the main topics and problems which, it is suggested, should be the basis of group study and discussion. The following topics are treated at some length: "Purpose and Need of a State-wide Study of the Curriculum," "Basic Philosophy and Guiding Principles in Curriculum Development," "The Aims of Education," "Pupil Needs, Purposes, and Interests," "Nature and Scope of the Curriculum," "The Relation of Subject Matter to the Curriculum," and "Teaching Procedures." One section of the bulletin contains an extensive bibliography of a general nature. This bibliography is supplemented by a list of references following each topic. The desired outcome of the entire program "is the preparation and installation of tentative courses of study, which will guide the teachers of the state in a continuous evaluation and progressive development of the curriculum."

This publication will be read with interest by any who are concerned with the problems of curriculum reorganization.

THE TEACHING OF INTERNATIONAL UNDERSTANDING IN MEXICO AND SOUTH AMERICA

At a time when the nations of Europe are divided into armed camps and international crises succeed one another in swift succession, it is gratifying to learn that Mexico and a number of her neighbors to the south are revising their textbooks in history and geography in order that these may be made to contribute definitely to the development of international understanding and good will. The following statement, quoted from a dispatch from Mexico City to the *Christian Science Monitor*, reveals something of the extent and nature of the movement.

> The study of world-history, as taught in the Mexican schools, will have a decided pacifist trend, it has been annouced here.
>
> This complies with the resolutions taken at the Seventh International American Congress held at Montevideo in December, 1933, when nineteen countries signed a pact which pledged them to co-operate in the interests of international peace. One object of this pact was the stress laid upon the teaching of history to school children. It was agreed that, insofar as possible, partiality and racial hatreds should be eliminated and all elements be suppressed that might engender hatred among the nations.
>
> The signatory countries were Honduras, United States, Salvador, Dominican Republic, Haiti, Argentina, Venezuela, Brazil, Paraguay, Mexico, Panama, Bolivia, Guatemala, Ecuador, Nicaragua, Colombia, Chile, Peru, and Cuba. Mexico ratified the compact on January 27, 1936, placing her documents in the files of the Pan American Union in Washington.
>
> The Department of Education will keep the promises that Mexico has made in regard to the teaching of history. The program just announced contains the following points:
>
> 1. Revision of textbooks with the object of eliminating all elements that might incite the child to racial prejudice.
> 2 Periodic revision of textbooks to keep them supplied with up-to-date statistics and information on Latin-American countries.
> 3. Foster in each Latin-American country an interest in the history of her sister-countries.
> 4. No text to contain unfriendly criticisms of other countries
> 5. Attenuate the bellicose spirit of most histories.
> 6. Eliminate all unfair comparisons between national heroes and those of other countries.
> 7. Eliminate all reference to victories over other countries which reflects upon the moral spirit of the vanquished.
>
> This pacifist movement has been well received by school teachers who feel that the time has passed when any nation could afford to maintain an isolated position before the world. Pan-Americanism here is rapidly becoming as strong a spirit as nationalism, and such measures as these are expected to strengthen it.

A recent number of the *Bulletin of the Pan American Union* carries the following account of the efforts of Brazil and Argentina to promote Pan-American friendship.

> The textbooks used for the teaching of history and geography in Brazilian schools are to be revised in the interest of Pan-American friendship. In accord-

ance with a convention signed with Argentina on October 10, 1933, topics which might arouse ill feeling toward any American nation in minds of students are to be eliminated from Brazilian histories, and the geography textbooks are to be revised so as to give a clear picture of the resources and productive capacity of the nations of America. To this effect a commission of distinguished Brazilians appointed by the federal government has approved the following standards, which must be met by the textbooks used in all public schools as well as in private schools under government supervision:

"1. The history of Brazilian civilization must be written in such a way as to stimulate young people to appraise all aspects of the nation's past. Textbooks must preserve a certain proportion in dividing history into its various periods so that a partial view of the facts will not prevent the student from getting a complete picture of Brazil's physical environment, people, evolution, and unity.

"2. History textbooks must not make disparaging comments about foreign countries.

"3. History textbooks must expand the chapters dealing with the relations as regards peace and commerce between Brazil and foreign countries, especially American countries, giving the proper historical perspective to international solidarity.

"4. Brazilian history textbooks must emphasize the traditional altruism and idealism of the nation's foreign policy and the constancy of its sentiments for conciliation and cordiality.

"5. Since truth is a common objective of history, the attitudes, initiatives, and facts in inter-American relations which give an American meaning to our civilization and constitute a safeguard of the pacific destinies of the New World should be emphasized.

"6. Considering that the history textbooks used in the primary and secondary schools should supply a maximum of exact information about the past of the country, controversial topics, comments, and digressions should be carefully excluded and only facts given. In dealing with international questions, offensive opinions and ideas which may wound the dignity or feelings of a nation should be avoided.

"7. Geography textbooks must use the latest official statistics and portray as closely as possible the resources and productive capacity of foreign countries."

The commission which drafted these standards was composed of the following historians, writers, and educators: Affonso de E. Taunay, Jonathas Serrano, Raja Gabaglia, Souza Docca, Othelo Rosa, Pedro Calmon Moniz de Bittencourt, Fonseca Hermes, and Renato Mendonça.

The convention on the revision of history and geography texts is one of the eleven treaties and conventions signed between Argentina and Brazil when the Argentine President, General Agustín Justo, visited Brazil in 1933. It is open to the adherence of other American states. Together with those signed when Dr. Getulio Vargas, President of Brazil, returned the visit of President Justo in

1935, these treaties and conventions form a series which regulate the manifold phases of mutual relations between Argentina and Brazil and seek to remove many of the obstacles, both tangible and intangible, which might hinder more intensive collaboration in the great task of Pan-American progress.

METHODS OF SELECTION AND COMPOSITION OF STATE BOARDS OF EDUCATION

In a recent circular issued by the United States Office of Education (Circular Number 166), Ward W. Keesecker, specialist in school legislation, summarizes in comparative manner the principal legal provisions governing the selection, qualifications, and tenure of state officials who are primarily responsible for the administration of state school systems. The circular indicates that appointment by the governor is the most common method of selecting members of state boards of education. In twenty-six states either the entire membership or a majority of the membership of the state board of education is selected in this manner. In eight states the entire membership or a majority of the membership of the state board is made up of ex officio members; in five states at least a majority of the board members are elected by popular vote, and in one state, New York, the state board (Board of Regents) is selected by the state legislature. There are eight states which do not have state boards of education vested with administrative and supervisory control over the general school system of the state.

A GUIDE FOR THE TEACHING OF SAFETY

Teachers who are interested in integrating the teaching of safety with the other activities of the school will welcome a recent bulletin published by the Department of Public Instruction of Michigan under the title *Education for Safety*. The general purpose of the bulletin is indicated by the following quotation from the Foreword.

> This bulletin is not a course of study. It was the feeling of the committee that safety education should be integrated with various fields of instruction rather than set apart as a separate course of study. The pages that follow include descriptions of teaching activities which it is hoped will suggest plans for use by elementary- and high-school teachers for a variety of situations.

Chapters are devoted to such topics as the following: "The School and Safety," "Street and Highway Safety," "Accident Prevention in the Home," "A School Shop Safety Program," "Safety in School and at Play," "Safe Transportation for School Children," "The Prevention of Fires," and "First Aid for the Injured." The Appendix contains an extensive list of references on the teaching of safety. The bulletin is a joint publication of the Department of Public Instruction and the Michigan Safety Council.

ELEMENTARY-SCHOOL GRADUATION EXAMINATIONS

Nearly half of the states have adopted the practice of administering state-wide examinations to elementary-school pupils as a basis of determining their eligibility for graduation. David Segel, specialist in tests and measurements in the United States Office of Education, has recently made a nation-wide study of these elementary-school graduating examinations. Dr. Segel's findings and recommendations are summarized as follows in the published report of the study (Office of Education Bulletin Number 16, 1935):

FINDINGS

1. Extent of the use of elementary-school graduating examinations:
   a) Twenty-one states administer state-wide examinations at the end of the elementary-school period as an aid in determining eligibility for graduation.
   b) In sixteen other states all or some of the counties administer graduating examinations on a county-wide basis.
2. State and county official regulations regarding elementary-school graduating examinations:
   Some states have statutory regulations for the administration of examinations on either a state-wide basis or in counties in the rural and village schools. In other states the state boards of education have set up regulations for such examinations. Where the state boards of education make their own regulations, the elementary-school graduation examinations are sometimes given in all the schools of the state. In states not having mandatory regulations concerning these examinations some of the counties have given examinations over such a long period of time that the custom has become as strong as law.
3. Types of examinations used and subjects tested:
   Standardized elementary-school test batteries are used in some states. For the most part, however, locally constructed tests are used. The subjects tested usually include arithmetic, reading, spelling, English, history and civics, geography, and physiology and hygiene. The examinations are invariably based upon the state course of study.
4. Methods of constructing examinations:
   Committees of subject-matter specialists and experts in test construction

collaborated in constructing some of the examinations. In such cases the test items were carefully selected. Sometimes a revision was made of the test items selected by trying out the items on a small group. Most examinations, however, have been made up without much analysis of the course of study; without preliminary study of the test items; and without a tryout of the material.

5. Types of questions:
   The standardized tests are composed of the new-type, short-answer test items. The locally constructed examinations were also in the main of this type. A few examinations are still composed entirely of essay-type questions. Many of the questions are good. There are, however, many test items which, although adhering to the new-type form, are poorly worded.
6. Validity of the test results:
   The validity of the test results is necessarily dependent in part upon the methods used in constructing the examinations. The validity of these examinations for use in determining eligibility for graduation from the elementary school also is dependent upon the comparability of the scores on the examinations for different years. Except for the standardized tests, no such comparable scores or arrangements for finding comparable scores were reported. Since the new examinations constructed year after year have no known comparability, the percentage of pupils passing differs year by year. Actually these tests furnish no definite standard for promotion.
7. Relation of the elementary-school graduating examination to other testing programs of the school:
   In most schools the graduating examination was the only formal type of testing carried on in the school. However, in some states and counties this final examination was but a part of a broader program of testing carried on through several or all of the elementary grades.

RECOMMENDATIONS

1. That examinations which are used mainly to determine eligibility for graduation from the elementary school be discontinued.
2. That legislation be secured which will give the authority to make rules and regulations regarding the accrediting and supervision of elementary schools to the state boards of education Such authority will make possible a flexibility in the testing program of each state.
3. That in those states where a need for better pupil guidance, knowledge of individual differences, or a check upon the efficiency of the curriculum is felt a testing program be established. Some suggestions regarding the important points of such a program are as follows
   a) An examination to be used in rural and village schools over a whole state or large portion of the state.
   b) An examination which covers several of the elementary-school grades If only one grade can be economically tested, this should be the sixth grade

in eight-year elementary-school systems or the fifth or sixth grade in seven-year elementary-school systems.
c) An examination which is constructed by a committee of test specialists and subject-matter specialists appointed for the purpose.
d) An examination which covers as many of the objectives of the subjects tested as possible.
e) As far as possible the tests should be constructed so that the diagnosis of pupil weaknesses and strengths can be made in order that remedial instruction may follow.

4. The teacher should give and score the examination under the direction of the county superintendent and the state department of education. The scores for the different pupils should be made available to the county superintendent for use in compiling average scores by grades and in the supervision of instruction.

A Guide to Instruction in the Elementary School

In 1935 a committee was appointed to evaluate the curriculum of the public schools of Michigan and to devise ways of improving it. The committee is attacking its problem from two directions: (1) It is undertaking the development of a curriculum which will embrace all the important school-related experiences of children. (2) It has addressed itself to the preparation of a number of bulletins, more or less closely related to the curriculum itself, which will aid teachers and administrators in bringing the experiences of the classroom into closer relation with experiences of present-day life. The plan calls for the publication of four bulletins under the following titles: *Instructional Guide for Elementary Schools*, *Implications of Research and Experimental Practice for Elementary School Teaching*, *Superior Innovating Practices in Michigan Elementary Schools*, and *Social and Economic Trends in Michigan with Their Educational Implications*.

The first bulletin of the series was published recently by the Department of Public Instruction of Michigan. Part I, "General Suggestions to Teachers," contains chapters on such topics as the following: "Some Basic Characteristics of Effective Teaching," "Suggestions to the Beginning Teacher," "Organization and Schedules for the One-Teacher School," "Appraisal of Instruction," "The Use of Individualized Materials," and "The Use of Large Units of Instruction." Part II of the bulletin consists of a syllabus by grades, which is designed to present in brief outline the program of studies and major emphases in Michigan elementary schools from beginners' classes through the eighth grade. The following quotation indicates something of the general purpose and arrangement of the syllabus.

> The syllabus is arranged primarily by grades rather than by subjects. Former editions of the Michigan state course of study for elementary schools have been arranged basically by subject. Each plan has its own advantages and disadvantages. The subject arrangement provides for vertical articulation; that is, the work in any one subject follows logically from grade to grade. The disadvantage is the lack of horizontal articulation—the correlation of the various subjects that a pupil is taking in a single grade. The grade arrangement, on the contrary, facilitates horizontal articulation but at the expense of vertical articulation. When all the objectives and activities for a particular grade are placed together, it is easier for the teacher to correlate the work done in different subjects by the pupils in this grade. The committee felt that the present emphasis on integration is better met by the grade arrangement than by the subject arrangement. Obviously, however, true integration of the experiences provided children in a grade requires careful and continuous planning by the teacher and pupils.
>
> For each grade and subject, suggestions are offered under two main heads, objectives and activities. By *objectives* are meant the changes to be made in pupils in knowledge, skills, attitudes, and ideals. By *activities* are meant the experiences through which pupils may be expected to attain the objectives. . . . .
>
> Although the syllabus does not make radical departures from former editions of the Michigan state course of study, several changes in emphasis have been made in the effort to reflect recent trends in educational thinking. The first of these is a greater attention to elementary science throughout the grades on account of the realization of the large place that science has in modern life. A second change is increased emphasis on oral expression as contrasted with written expression for the reason that oral language is realized to be the major form of communication used by most people. A third emphasis is the social-studies group. Although the syllabus is organized by the separate subjects under the social studies, it is hoped that teachers will use every opportunity to weave together the contributions of the fields that deal with human relations and the factors that influence those relations. The trend throughout the country is to unify the social studies and to make them the core of the curriculum as a whole

A STUDY OF THE SOCIAL SIGNIFICANCE OF ADULT EDUCATION

The following statement is quoted from a recent issue of the *New York Sun*.

> Funds to study the social significance of adult education will replace the adult-education program which has been maintained for the past ten years by the Carnegie Corporation, it was announced today by Frederick P. Keppel,

president of the corporation. Grants and commitments totaling $625,000 have been approved for this work.

The adult-education program of the corporation, which has been administered for the last decade through the American Association for Adult Education . . . . will continue to be centered in that organization, Dr. Keppel stated. He said, however, that the emphasis formerly placed by the association upon experimental and demonstrational projects will be changed to a five-year series of studies on the social significance of adult education.

The findings of the study will be issued over the five-year period in the form of a series of books and pamphlets dealing with adult education as conducted by such agencies as universities and colleges, public schools, public libraries, settlements, forums, museums, churches and other religious organizations, hospitals, prisons, schools for adults, federal and state governments, clubs, lyceums and chautauquas, and other similar agencies.

The various forms of adult education which have been developed for special groups of adults, such as the physically handicapped, racial groups, and occupational groups also will be studied. Forty studies are planned in all, to be published at the rate of eight a year.

For 1936–37, a total of $40,000 has been made available for the study. This sum will increase annually by $2,500 until $50,000 is reached in 1940–41, making a total of $225,000. An adult education projects fund has been established in the amount of $35,000 for 1936–37, decreasing annually by $2,500 until $25,000 is reached in 1940–41, making the total for the five-year period $150,000. A total of $250,000 has been provided for the five-year period for the administrative expenses of the American Association for Adult Education, including the costs of publication of the quarterly *Journal of Adult Education*.

In announcing the change of policy which shifts emphasis from experiment to study, Dr. Keppel said: "After a decade of experimentation, during which there has been an unprecedented growth in adult education, it seems advisable to pause and examine the accomplishments and trends and possibly chart a new course for the future. During the years 1936–41, therefore, funds granted by the corporation to the association for experimental purposes will gradually diminish, and research and study will be directed less at opening new fields of adult activity and more at the improvement of existing fields."

SOCIAL PLANNING COUNCILS IN NEW JERSEY

Educational leaders in this country are beginning to manifest an awareness of the importance of the total social environment of the child. There is a growing sensitiveness to conditions in the community outside the school which may, and do, affect the life of the child, and there is an increasing recognition of the need of a community program which organizes for common action such agencies as may be made to contribute to the development of a more wholesome environment. In the state of New Jersey a number of communities have been particularly successful in mobilizing social agencies for joint action. In a bulletin entitled *The School in a Community Council*, the New Jersey Elementary Principals' Association presents a picture of what is being done in some communities to co-ordinate the efforts of social agencies so that they may function more effectively. Sections of the bulletin are devoted to the following topics: "The School and Other Agencies," "The Responsibility of the School in the Community Council," "The Plainfield Delinquency Council," "The Cumberland County Clinic Conference," "Social Improvement through the Community Council," "Community Co-ordination on a County Basis," "A Rural School Recreation Project," and "How Can Community Councils Discover and Serve Individual Children." The bulletin should be of particular value to persons interested in the work of social-planning councils. It may be secured at sixty cents a copy from John P. Milligan, Watsessing School, Bloomfield, New Jersey.

Who's Who in This Issue

Maude W. Smith, county school commissioner in Barry County, Michigan. Fern E. Bickford, county school commissioner in Branch County, Michigan. Deland A. Davis, county school commissioner in Calhoun County, Michigan. Henry J. Otto, director of education of the W. K. Kellogg Foundation, Battle Creek, Michigan. John A. Hockett, lecturer in education at the University of California. N. Glen Neeley, graduate student at the University of California. A. R. Lord, principal of the Provincial Normal School, at Vancouver, British Columbia. Floyd Jordan, professor of education at Northwestern State Teachers College, Alva, Oklahoma. Emma Feuerstein, supervisor of fifth grade at Lincoln Consolidated School, Michigan State Normal College, Ypsilanti, Michigan. Mary R. Martin, supervisor of third grade at Lincoln Consolidated School, Michigan State Normal College, Ypsilanti, Michigan Harl R. Douglass, professor of secondary education at the University of Minnesota. Kate Wind, counselor of Jefferson Junior High School, Minneapolis, Minnesota. William C. Reavis, professor of education at the University of Chicago. Nelson B. Henry, associate professor of education at the University of Chicago.

AGE-GRADE AND GRADE-PROGRESS DATA FOR CHILDREN IN ONE-ROOM RURAL SCHOOLS

MAUDE W. SMITH, FERN E. BICKFORD, AND DELAND A. DAVIS
County School Commissioners in Barry, Branch,
and Calhoun Counties, Michigan

HENRY J. OTTO
W. K. Kellogg Foundation, Battle Creek, Michigan

Numerous studies have been reported showing the age-grade status and the grade progress of pupils in city graded schools. Comparatively little information is available on these topics in the case of children in rural schools. Some of the studies of rural children which have been published do not make specific identification of the one-room schools. According to the United States Census classification, the "rural" area includes towns and villages with populations of less than twenty-five hundred as well as the open-farm territory. Much of the evidence on rural education combines the one-room schools with the smaller graded and consolidated schools in rural areas. For these reasons it was thought profitable to present certain facts and analyses about one-room schools.

During October and November, 1935, the teachers in the one-room schools in Barry, Branch, and Calhoun Counties, Michigan, were requested to report on blanks provided for them the age-grade and the grade-progress facts for the children enrolled in their schools. Ages were to be calculated as of September 1, 1935. The age-grade data obtained from 292 one-room schools are presented in Table I, and the grade-progress data obtained from 280 such schools are given in Table II.

Of particular significance in Table I are the wide range in ages of the children in any one grade, the high percentage of under-age pupils, and a percentage of over-ageness fully as large as that in schools having less under-ageness. Supplementing these findings are those of Table II, which show unusually high percentages of retarded

TABLE I

AGE-GRADE STATUS OF CHILDREN IN 292 ONE-ROOM RURAL SCHOOLS IN BARRY, BRANCH, AND CALHOUN COUNTIES, MICHIGAN AS OF SEPTEMBER 1, 1935

Age	Number of Children in Grade								
	I A and I B*	II	III	IV	V	VI	VII	VIII	Total
4½	17								17
5	82								82
5½	128	9	1						138
6	204	33							237
6½	137	80	3						220
7	77	153	49						279
7½	39	109	86	7	1				242
8	22	74	177	38					311
8½	15	36	116	95	8				270
9	5	18	78	146	41	1			289
9½	2	10	52	130	82	9	1		286
10	1	2	24	82	162	40	1		312
10½		3	13	38	112	66	8		240
11	3		7	35	95	135	30	3	308
11½	1	2	1	17	54	118	72	8	273
12			3	7	33	85	149	32	309
12½	1		2	6	22	54	133	64	282
13	1		1	4	13	33	94	112	258
13½				1	5	25	51	113	195
14		1	1		7	22	39	86	156
14½					2	8	21	70	101
15			1		1	1	15	32	50
15½			1	2		3	12	22	40
16						1	2	13	16
16½					1			2	3
17									
17½								1	1
Total	735	530	616	608	639	601	628	558	4,915
Number of pupils:									
Under age	227	122	139	140	132	116	112	107	1,095
Normal age	418	336	371	358	369	338	376	311	2,877
Over age	90	72	106	110	138	147	140	140	943
Percentage of pupils:									
Under age	31	23	23	23	21	19	18	19	22
Normal age	57	63	60	59	58	56	60	56	59
Over age	12	14	17	18	21	25	22	25	19

* Includes beginners and regular first-grade pupils

TABLE II

GRADE PROGRESS OF CHILDREN IN 280 ONE-ROOM RURAL SCHOOLS IN BARRY, BRANCH AND CALHOUN COUNTIES, MICHIGAN, AS OF SEPTEMBER 1, 1935

AMOUNT OF RETARDATION OR ACCELERATION	GRADE I		GRADE II		GRADE III		GRADE IV		GRADE V		GRADE VI		GRADE VII		GRADE VIII		ALL GRADES	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Retarded boys:																		
4 years	6	1.6	4	1.5	5	1.5	4	1.3	5	1.4	6	2.0	6	1.9	3	1.1	39	1.5
3 years	5	1.3	...	...	5	1.5	8	2.6	8	2.3	7	2.3	9	2.8	2	0.7	44	1.7
2 years	10	2.7	15	5.6	23	7.0	14	4.5	23	6.6	23	7.7	20	6.2	20	7.2	148	5.9
1 year	62	16.5	43	16.1	84	25.4	76	24.6	92	26.4	71	23.8	76	23.7	72	25.9	576	22.8
Total retarded boys	83	22.1	62	23.2	117	35.4	102	33.0	128	36.7	107	35.8	111	34.6	97	34.9	807	31.9
Normal boys	292	77.9	201	75.3	208	62.8	196	63.4	212	61.0	177	59.2	192	59.8	164	59.0	1,642	65.0
Accelerated boys:																		
1 year	...	...	4	1.5	6	1.8	11	3.6	8	2.3	14	4.7	18	5.6	17	6.1	78	3.1
2 years	...	...	...	...	...	...	...	...	...	...	1	0.3	...	...	...	...	1	0.04
3 years	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total accelerated boys	...	...	4	1.5	6	1.8	11	3.6	8	2.3	15	5.0	18	5.6	17	6.1	79	3.1

TABLE II—*Continued*

AMOUNT OF RETARDATION OR ACCELERATION	GRADE I		GRADE II		GRADE III		GRADE IV		GRADE V		GRADE VI		GRADE VII		GRADE VIII		ALL GRADES	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Retarded girls:																		
4 years	1	0.3	...	...	5	1.8	...	...	5	1.8	1	0.3	2	0.7	1	0.4	15	0.7
3 years	3	1.0	2	0.8	1	0.4	1	0.4	2	0.7	3	1.0	4	1.4	1	0.4	17	0.8
2 years	6	2.1	6	2.4	6	2.2	13	4.6	17	6.0	14	4.6	12	4.2	9	3.5	83	3.7
1 year	29	10.0	41	16.2	35	12.8	47	16.7	59	20.7	58	19.2	53	18.5	50	19.2	372	16.6
Total retarded girls	39	13.4	49	19.4	47	17.2	61	21.7	83	29.2	76	25.1	71	24.8	61	23.5	487	21.8
Normal girls	250	85.6	198	78.6	218	79.9	209	74.3	184	64.8	206	68.0	193	67.5	170	65.3	1,628	73.0
Accelerated girls:																		
1 year	2	0.7	5	2.0	6	2.2	10	3.6	16	5.6	16	5.3	21	7.3	26	10.0	102	4.5
2 years		...	...	...	2	0.7	1	0.4	1	0.4	3	1.0	1	0.4	3	1.2	11	0.5
3 years	...	...	...	...	...	.	.	.	...	...	1	0.3	...	...	...	...	1	0.04
4 years	1	0.3				...	...	...	...	...	1	0.3		...	...	...	2	0.09
Total accelerated girls	3	1.0	5	2.0	8	2.9	11	4.0	17	6.0	21	6.9	22	7.7	29	11.2	116	5.2
Boys and girls.																		
Retarded	122	18.3	111	21.4	164	27.2	163	27.6	211	33.3	183	30.4	182	30.0	158	29.3	1,294	27.2
Normal	542	81.3	399	76.9	426	70.5	405	68.7	396	62.7	383	63.6	385	63.4	334	62.1	3,270	68.7
Accelerated	3	0.4	9	1.7	14	2.3	22	3.7	25	4.0	36	6.0	40	6.6	46	8.6	195	4.1
Total	667	100.0	519	100.0	604	100.0	590	100.0	632	100.0	602	100.0	607	100.0	538	100.0	4,759	100.0

pupils in each of the grades and only a conventional percentage of acceleration. As usual, there is more retardation among the boys and more acceleration among the girls.

In order to interpret these facts adequately, one needs to know about certain administrative policies in Michigan. The attendance law states that children may attend school when they have become five years of age. In the districts having one-room schools this statement is usually taken literally, quite apart from any consideration of the extent to which the school is equipped to provide an educational program appropriate for five-year-old children. Practically all the one-room schools are eight-grade schools, and the majority of the teachers are still following a daily program divided into twenty-five to thirty-five short periods so that there may be a recitation for each subject in each grade. Consequently, it is most difficult for the teacher to find time for the five-year-old pupils. In fact, an analysis of thirty-five daily programs in one-room schools made by Whit Brogan, of Northwestern University, showed that the median amount of teacher-pupil contact in Grades I and II was only twenty minutes a day.[1] It seems reasonably safe to conclude that most of these one-room schools under present circumstances are inadequately prepared to provide an appropriate program for five-year-old children. What the majority of teachers do is to classify the five-year-old pupils in a "beginners" or "chart" class and lay out for them the first half of the course of study outlined for Grade I. The second half of the first-grade course is to be covered by these pupils during their stay in Grade I. In other words, these pupils begin their school careers with the first-grade course and take two years to cover the first-grade curriculum. It is for this reason that the "beginners" are grouped with the regular first-grade pupils in Table I. Of course, many children do not enter school until they are six years old or older, and for them this two-year program does not apply.

Theoretically, these procedures are followed for five-year-old entrants. Practically, because of certain local pressures, many five-year-old pupils do not spend two years doing the work of Grade I; at the end of their first year in school many of them are promoted to

---

[1] Whit Brogan, "Education's Forgotten Child," *Educational Trends*, IV (December, 1936), 17–21.

Grade II and receive subsequent regular promotions. This practice undoubtedly accounts for the high percentage of under-ageness in each of the grades. This conclusion is substantiated by the small amount of acceleration shown in Table II. Apparently, much of the under-ageness is due to early entrance and sufficiently regular progress to enable many pupils to maintain an under-age status throughout their elementary-school careers. Unless these pupils happen to have better-than-average intelligence or unless the course of study is geared down for them, they will pass through the elementary school too immature to cope understandingly with the content of the course of study to which they are exposed.

It is likely that early entrance and semi-regular progress in the lower grades have some bearing on the increasing amount of retardation shown in the middle and the upper grades. Of course, the usual array of other factors has been operative also in producing the age-grade and grade-progress facts shown in the tables. Ordinarily, with high percentages of under-ageness and retardation and a low percentage of acceleration present in the same school, achievement somewhat above the norms for each grade would be anticipated. This situation was not found in these Michigan schools. During November, 1935, the Metropolitan Achievement Tests were given in Grades IV–VIII, inclusive, in the one-room schools of Branch County. Except in Grade IV the median grade scores (the average of all the individual tests) were below the norms for the grades The test norms exceed the grade scores by the following amounts: Grade IV, 0 0, Grade V, 0.4; Grade VI, 0.6; Grade VII, 0.1; Grade VIII, 0.5. About two hundred children were tested in each of the grades. Although these differences are not large, they are all in the same direction (below the norms). Apparently, the under-ageness cannot be explained or justified on the basis of high achievement. Neither can the large amount of retardation be the result of the teachers' insistence on unusually high standards

These analyses suggest that the educational pattern in these one-room schools has produced a curious combination of circumstances. There is much under-ageness in all the grades, somewhat more in the lower grades than in the upper grades; yet there has been little acceleration. In no grade does the percentage of over-age children exceed 25; yet in all the grades except Grades I and II, the percentage of retarded pupils exceeds 25. Achievement in middle and upper grades (the only grades tested) is somewhat below par. Most of the schools operate under daily schedules which call for twenty-five to thirty-five short periods each day, with the children in the primary grades receiving the least of the teacher's time. It seems clear that the quality of the educational program in these one-room schools cannot be much improved until some of the administrative obstacles have been removed.

TABLE III

PERCENTAGE DISTRIBUTION ACCORDING TO AGE-GRADE STATUS OF PUPILS IN THREE STUDIES

Age-Grade Status	Districts in Northern Illinois*	Mort and Featherstone Study†	One-Room Schools in Michigan
Grade I:			
Under age	10	17.3	31
Normal age	85	72.9	57
Over age	5	9.8	12
Grade V:			
Under age	13	15.9	21
Normal age	74	62.5	58
Over age	13	21.6	21
Grade VII:			
Under age	14	18.6	18
Normal age	73	58.9	60
Over age	13	22.5	22

* Henry J. Otto, *Promotion Policies and Practices in Elementary Schools*, p. 51. Minneapolis, Minnesota: Educational Test Bureau, Inc., 1935.

† Paul R. Mort and W. B. Featherstone, "Entrance and Promotion Practices in City School Systems: Standards and Accounting Procedures," p. 22. New York, Teachers College, Columbia University, 1934 (revised).

The age-grade status and the grade progress of children in these Michigan one-room schools compare favorably with similar data for rural schools previously gathered. Cooke, in his analysis of twenty-four surveys of rural schools, reported the following medians for age-grade status in rural schools: retarded, 47.9 per cent; normal, 48.6 per cent; and accelerated, 6.4 per cent.[1] Cooper, tracing the school careers of 832 pupils entering Grade I in 1915 in the rural schools of

---

[1] Dennis H. Cooke, "A Study of School Surveys with Regard to Age-Grade Distribution," *Peabody Journal of Education*, VIII (March, 1931), 262.

Delaware, found that one out of every two of these entrants spent his first two years of school in Grade I, while one out of every eight spent the first three years in Grade I. Fifty per cent of all non-progress in the one-teacher schools was chargeable to Grade I, 38 per cent to Grades II and III, and 10 per cent to Grades IV and V.[1]

The Michigan one-room schools compare unfavorably with annual-promotion city schools on age-grade and progress factors. The data in Table III compare age-grade data.

Because one school shows up more favorably than another with respect to age-grade and progress status is no proof that one school is good and the other is poor. Comparisons which show conditions in one school to be somewhat better than those in another are likely to make workers in the better school forget that conditions in their school may still be unsatisfactory. The theoretical goal is to have zero per cent of under-ageness and over-ageness, zero per cent of retardation and acceleration, and 100 per cent of normal-ageness and normal progress.

---

[1] Hermann Cooper, *An Accounting of Progress and Attendance of Rural School Children in Delaware*, p. 46 Teachers College Contributions to Education, No. 422 New York: Teachers College, Columbia University, 1930

THE VOCABULARIES OF TWENTY-EIGHT FIRST READERS

JOHN A. HOCKETT AND N. GLEN NEELEY
University of California

Committees responsible for the adoption of textbooks and teachers who daily use those books with their pupils need the most accurate and complete information that it is possible to secure concerning the content and the difficulty of the available books. This need is especially urgent in the case of primary readers, for it is now generally recognized that the progress of the beginner in reading is greatly facilitated by the provision of an abundant supply of interesting and easy reading material. Limitation of vocabulary burden and provision of adequate repetition of the words which are introduced are being more and more carefully planned and successfully achieved in the books published for the youngest readers. Some classes and some children will, of course, require less repetition and less restriction of vocabulary, while other groups and individuals will need more. Teachers must always make adaptations to meet the needs of specific classes and individuals. To make such adaptations wisely, the teachers must have detailed and comparable data regarding various books.

The purpose of the writers is to present essential information on the vocabularies of twenty-eight widely used first readers, so that teachers may use the several books intelligently and effectively in their work. There is no desire to increase the use of any particular book or to discredit any of the books. Whatever readers may be available in a classroom can be used more effectively if the facts as to their vocabularies are known. Other information also must be considered along with that presented. The nature of the content and the literary, artistic, and typographical merits of each book must, of course, be taken into account.

PROCEDURES EMPLOYED

Each reader was carefully read, and a tabulation was made of the number of times that each word was repeated. All variants of word forms were considered different words except those formed by the addition of a single *s* to form the plural of nouns or the singular of verbs. The possessive form and the plural formed by the addition of *es* were considered different from the root words. No count was made of the repetition of the following nine words, which appear with great frequency in all written material: "a," "and," "he," "I," "is," "said," "the," "to," and "you" Much labor was saved by assuming that each of these words would appear at least forty times in each book. A previous analysis of primers[1] gave justification for this assumption. All material in each book which would normally be read by children was included in the analysis. The title-page, the table of contents, the preface, and the concluding word list were omitted. Comprehension exercises, poems, and titles of stories were included. Workbooks or exercise books made to accompany the various readers were not included. In the *New Path to Reading* the exercise material on pages 207–26 entitled "My First Word Reader" was not included In *The Unit-Activity Reading Series* the titles at the bottom of pages 7, 29, 63, 77, etc., were not included. The total number of running words in each book was determined by counting the words on each two pages, writing the total at the bottom, adding on the adding machine, and checking the machine record against the page totals.

The reader can appreciate the difficulty of making a detailed analysis involving such large numbers of words with absolute accuracy Much time and effort have been devoted to checking and rechecking, however, and throughout the study methods were used which seemed least likely to lead to errors. In many instances (whenever data were available) word lists and frequencies were checked with those supplied by the publishers. It is the hope of the writers that no significant errors are present.

The first readers in the following series were analyzed.

1. Margaret L. White and Alice Hanthorn, *Our Friends at Home and School* Do and Learn Readers. Chicago: American Book Co , 1930.

2 Henry Suzzallo, George E Freeland, Katherine L. McLaughlin, and Ada M. Skinner, *Fact and Story Readers*. Chicago: American Book Co., 1930

---

[1] John A Hockett and Deta P Neeley, "A Comparison of the Vocabularies of Thirty-three Primers," *Elementary School Journal*, XXXVII (November, 1936), 190–202

3. Clara B. Baker and Edna D. Baker, *Bobbs-Merrill Readers*. Indianapolis, Indiana: Bobbs-Merrill Co., 1924.

4. Clara B. Baker, Mary Maud Reed, and Edna D. Baker, *Friends in Town and Country*. The Curriculum Readers. Indianapolis, Indiana: Bobbs-Merrill Co., 1934.

5. Clara B. Baker and Edna D. Baker, *Fifty Flags and Other Stories*. True Story Series. Indianapolis, Indiana: Bobbs-Merrill Co., 1928.

6. B. R. Buckingham, *Playing Together*. The Children's Bookshelf. Boston: Ginn & Co., 1934.

7. Mary E. Pennell and Alice M. Cusack, *The Children's Own Readers*. Boston: Ginn & Co., 1929.

8. Anna Dorothea Cordts, *The New Path to Reading*. Boston: Ginn & Co., 1935 (revised).

9. Eva A. Smedley and Martha C. Olsen, *The First Reader*. The Smedley and Olsen Series. Chicago: Hall & McCreary Co., 1925.

10. Julia Letheld Hahn, *Everyday Friends* Child Development Readers. Boston: Houghton Mifflin Co , 1935.

11. Mathilde C. Gecks, Charles E. Skinner, and John W. Withers, *Friends To Make*. Story and Study Readers. Richmond, Virginia: Johnson Publishing Co., 1928.

12. Herman Dressel, M. Madilene Veverka, and May Robbins, *The Laidlaw Readers*. Chicago: Laidlaw Bros., 1924.

13. Isobel Davidson and Charles J. Anderson, *The Lincoln Readers*. Chicago: Laurel Book Co., 1926.

14. Edith Hope Ringer and Lou Chase Downie, *City and Country*. Citizenship Readers. Philadelphia: J. B. Lippincott, Co. 1930.

15. Frank N. Freeman, Grace E. Storm, Eleanor M. Johnson, and W. C. French, *Child-Story Readers* Chicago: Lyons & Carnahan, 1927.

16. Arthur I. Gates and Miriam Blanton Huber, *Round the Year*. The Work-Play Books. New York: Macmillan Co., 1930.

17. Katharine E. Dopp, May Pitts, and S. C. Garrison, *Busy Days with Little Friends*. Happy Road to Reading. Chicago: Rand McNally & Co., 1935.

18. William H. Elson and Lura E. Runkel, *The Elson Readers*. Chicago: Scott, Foresman & Co., 1920.

19. William H. Elson and William S. Gray, *The Elson Basic Readers*. Chicago: Scott, Foresman & Co., 1930.

20 William E. Grady, Paul Klapper, and Jane C. Gifford, *City and Country*. Childhood Readers. New York: Charles Scribner's Sons, 1932.

21. John M. Manly and Sarah E. Griswold, *Good Reading*. New York: Charles Scribner's Sons, 1926.

22. Cora M. Martin, *At Home*. Real Life Readers. New York: Charles Scribner's Sons, 1930.

23. Bessie Blackstone Coleman, Willis L. Uhl, and James Fleming Hosic, *The Pathway to Reading*. Newark, New Jersey: Silver, Burdett & Co., 1925 and 1932.

24. Nila Banton Smith, *In City and Country.* The Unit-Activity Reading Series. Newark, New Jersey: Silver, Burdett & Co., 1935

25. Clarence R. Stone and Anne Lotter Stone, assisted by Ida Vandergaw, *Easy New Stories.* The Webster Readers St. Louis, Missouri: Webster Publishing Co., 1932.

26. Marjorie Hardy, *Surprise Stories.* The Child's Own Way Series. Chicago: Wheeler Publishing Co., 1926.

27. William Dodge Lewis, Albert Lindsay Rowland, and Ethel Maltby Gehres, *Growing Up.* The New Silent Readers Philadelphia: John C. Winston Co., 1931.

28. Sidney G. Firman and Ethel Maltby Gehres, *The New Winston Readers.* Philadelphia: John C. Winston Co., 1928.

FUNDAMENTAL VOCABULARY DATA

The basic vocabulary data for each book are presented in Table I. The total number of running words is shown in the second column, followed by the number of different words in the third column. The average number of times that each word is repeated is given in the fourth column. This figure is found by dividing the total number of running words by the number of different words. The next six columns show the number of words which appear, respectively, once, two to five times, six to fifteen times, sixteen to twenty-five times, twenty-six to thirty-nine times, and forty times or more The eleventh column shows the percentage of words which are repeated six times or more, while the last column reveals the percentage repeated sixteen or more times.

The books range in length from *Childhood Readers* with 4,055 words to *The Children's Bookshelf* with 20,664. The median length is 8,540 words; the average, 9,057 words. Twenty books contain more than 7,000 and less than 11,000 words. The smallest vocabulary (377 words) appears in *The Curriculum Readers,* and the largest (831) in *The Smedley and Olsen Series.* The average vocabulary load (number of different words) is 589; the median, 581 words Fifteen of the vocabularies include between 500 and 700 words

The range in average repetition is from 8.3 in *The Children's Own Readers* to 32.4 in *The Children's Bookshelf.* The average is 15.6; the median, 14.8. The average repetition in nineteen of the books falls between 12 and 18, inclusive. The book with the greatest average repetition also contains the largest percentage of words which are repeated six or more times (79 per cent). The smallest percentage for words repeated six times or more is 39, in *Citizenship Readers* and in *Childhood Readers*. The average percentage of words re-

TABLE I

BASIC VOCABULARY DATA ON TWENTY-EIGHT FIRST READERS

Name of Reader	Total Number of Words	Number of Different Words	Average Repetition	Number of Words Used with Frequency of—						Percentage of Words Used—	
				1	2–5	6–15	16–25	26–39	40 and Up	Six Times or More	Sixteen Times or More
1. Do and Learn	9,605	589	16 3	61	200	172	64	42	50	56	26
2. Fact and Story	7,843	635	12 4	101	243	167	62	24	38	46	20
3. Bobbs-Merrill	8,444	471	17.9	83	146	97	67	37	41	51	31
4 Curriculum	9,020	377	23 9	9	94	131	49	43	51	73	38
5 True Story	11,577	645	17 9	91	178	207	70	44	55	58	26
6. Children's Bookshelf	20,664	638	32 4	30	106	274	90	44	94	79	36
7. Children's Own	5,451	653	8.3	45	272	207	63	4	62	51	20
8. New Path, Revised	9,725	583	16.7	92	183	148	67	38	55	53	27
9. Smedley and Olsen	12,530	831	15 1	179	270	205	72	38	67	46	21
10 Child Development	8,708	486	17.9	55	115	177	54	37	48	65	29
11. Story and Study	7,158	658	10 9	146	241	170	50	24	27	41	15
12. Laidlaw	8,244	542	15 2	121	147	146	47	36	45	51	24
13. Lincoln	10,345	795	13 0	183	277	181	59	44	51	42	19
14 Citizenship	8,108	737	11.0	172	281	162	59	29	34	39	17
15. Child-Story	7,248	592	12 2	106	227	154	49	25	31	44	18
16 Work-Play	7,413	565	13 1	30	276	151	44	25	39	46	19
17. Happy Road	8,637	485	17 8	30	133	192	59	32	39	66	27
18. Elson	13,935	798	17 5	130	251	237	75	34	71	52	23
19. Elson Basic	10,882	487	22 3	11	109	203	67	40	57	75	34
20. Childhood	4,055	485	8.4	90	208	133	30	8	16	39	11
21. Good Reading	10,391	721	14.4	134	219	208	71	40	49	51	22
22. Real Life	5,193	403	12.9	44	153	119	45	24	18	51	22
23. Pathway to Reading	8,143	578	14.1	55	200	196	52	32	43	56	22
24. Unit-Activity	9,129	489	18.7	55	102	191	57	41	43	68	29
25. Webster	9,679	537	18 0	36	178	176	61	42	44	60	27
26 Child's Own Way	6,430	572	11 2	127	210	130	43	26	36	41	18
27. New Silent	7,743	607	12 8	87	244	152	51	34	39	45	20
28. New Winston	7,293	526	13 9	93	155	164	58	24	32	53	22

peated more than five times for the twenty-eight books is 53.5; the median, 51. In *The Curriculum Readers* 38 per cent of the words are repeated sixteen or more times, while in *Childhood Readers* only 11 per cent have this amount of repetition. The average percentage of words repeated sixteen times or more is 23.7; the median, 22.

COMPARISON WITH THE GATES WORD LIST

The vocabulary of each reader was compared with Gates's revised word list[1] of 1,811 words. The results are shown in Table II.

TABLE II

COMPARISON OF VOCABULARIES OF TWENTY-EIGHT FIRST READERS WITH REVISED GATES WORD LIST

Name of Reader	Number of Different Words	Words Found in Gates List								Words Not in Gates List	
		In First 500		In Second 500		In Third 500		In Fourth 311			
		No.	Per Cent	No	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
1 Do and Learn.... .	589	380	65	107	18	35	6	18	3	49	8
2 Fact and Story ..	635	380	60	131	20	52	8	29	5	43	7
3 Bobbs-Merrill ..	471	302	64	81	17	32	7	19	4	37	8
4 Curriculum...	377	256	68	52	14	26	7	6	2	37	10
5 True Story .	645	393	61	132	20	37	6	13	2	70	11
6. Children's Bookshelf..	638	402	63	135	21	37	6	14	2	50	8
7. Children's Own . .	653	379	58	143	22	53	8	26	4	52	8
8. New Path, Revised .	583	367	63	111	19	35	6	23	4	47	8
9. Smedley and Olsen .	831	442	53	209	25	74	9	31	4	75	9
10. Child Development.	486	319	66	76	16	31	6	12	2	48	10
11. Story and Study	658	400	61	129	20	65	10	16	2	48	7
12. Laidlaw..	542	385	71	90	17	21	4	12	2	34	6
13. Lincoln . .	795	462	58	179	23	65	8	24	3	65	8
14. Citizenship. .	737	395	53	185	25	66	9	22	3	69	9
15 Child-Story . ..	592	350	59	108	18	64	11	25	4	45	8
16 Work-Play	565	380	67	108	19	39	7	15	3	23	4
17 Happy Road .	485	332	68	76	16	26	5	8	2	43	9
18 Elson	798	427	54	177	22	80	10	37	5	77	10
19. Elson Basic .	487	347	71	81	17	16	3	6	1	37	8
20. Childhood . . .	485	364	75	73	15	11	2	7	1	30	6
21. Good Reading. ..	721	424	59	168	23	58	8	24	3	47	7
22. Real Life . .	403	300	74	60	15	14	3	7	2	22	5
23. Pathway to Reading .	578	393	68	106	18	39	7	16	3	24	4
24. Unit-Activity . .	489	336	69	73	15	33	7	11	2	36	7
25. Webster . . .	537	393	73	92	17	18	3	7	1	27	5
26. Child's Own Way ..	572	352	61	125	22	48	8	26	5	21	4
27. New Silent .. .	607	374	61	120	20	47	8	18	3	48	8
28. New Winston .	526	350	67	96	18	37	7	17	3	26	5

In the third and the fourth columns are presented, respectively, the number and the percentage of the words of each book which are found in the first five hundred of the Gates list. The number and the percentage of the words in the second five hundred are presented in the next two columns, and so on. The final two columns show the number and the percentage of words not included in the Gates list.

---

[1] Arthur I. Gates, *A Reading Vocabulary for the Primary Grades* New York Teachers College, Columbia University, 1935 (revised)

Insofar as the writers are aware, no one has attempted to specify what proportion of the vocabulary of a first reader should be taken from the Gates list or from any particular portion of the list. Without attempting to evaluate, then, we may note the range and the central tendencies in actual practice. In the average first reader 64 per cent of the words are found in the first five hundred words of the Gates list, although the range is from 53 per cent to 75 per cent. Eighty-three per cent of the words of the average book are found in the first thousand of the Gates list, the range being from 76 per cent to 90 per cent. In the average book 7.4 per cent of the words fall outside the Gates list, the range being from 4 per cent to 11 per cent.

TABLE III

VOCABULARY OF THE AVERAGE FIRST READER PUBLISHED IN 1920–29 COMPARED WITH THAT OF THE AVERAGE FIRST READER PUBLISHED IN 1930–35

	AVERAGE FOR ALL READERS	AVERAGE FOR READERS PUBLISHED IN 1920–29 (13 BOOKS)	AVERAGE FOR READERS PUBLISHED IN 1930–35 (15 BOOKS)	CHANGE	
				Amount	Per Cent
Number of running words	9,057	9,015	9,094	+ 79	1
Number of different words	588.7	644.8	540.3	−104.5	16
Average repetition	15.6	14.0	17.0	+ 3.0	21
Percentage of words repeated six times or more	53.5	49.0	57.4	+ 8.4	17
Percentage of words repeated sixteen times or more	23.7	21.6	25.5	+ 3.9	18
Percentage of words in Gates first 500	63.9	61.0	66.4	+ 5.4	9
Percentage of words in Gates first 1,000	82.9	81.4	84.2	+ 2.8	3

TRENDS IN FIRST READERS

The summary given in Table III of the essential vocabulary facts for thirteen readers published before 1930 and for fifteen published from 1930 to 1935 indicates several marked changes. The most significant change is the reduction of vocabulary load by more than one hundred words, a decrease of 16 per cent. The average repetition increased by 3.0 words, and the percentage of words in the first five hundred of the Gates list shows an increase of 5.4. Other changes may be noted in the table.

Another method of revealing the trend toward smaller vocabularies is to show the average vocabulary load of the books published during each biennium for the past few years. In Table IV are presented the average vocabulary loads of the first readers published prior to 1926 and of those published during each two-year period since then. It is seen that a striking reduction in vocabulary load occurred during the years 1930–33 and that the typical first reader of the past four years contains only slightly more than five hundred different words.

TABLE IV

AVERAGE NUMBER OF DIFFERENT WORDS IN FIRST READERS PUBLISHED IN EACH BIENNIUM

Date of Publication	Number of Readers	Average Number of Different Words
1925 or earlier	5	644
1926–27	4	670
1928–29*	3	612
1930–31	7	575
1932–33	2	511
1934–35	6	510

* The True Story reader is not included because, as a supplementary reader, it has a larger vocabulary than have basic readers

SUMMARY

Analysis of twenty-eight first readers shows that almost 2,800 different words are used. This number, however, is only four-fifths as many as the 3,541 different words which Packer[1] reported in 1921 as a result of his analysis of ten first readers published before 1918.

The typical first reader of the past twelve years contains slightly more than 9,000 words of reading matter, slightly less than 600 different words, and presents 15.6 running words to each different word. Slightly more than half of the words are repeated more than five times, and slightly less than a fourth appear more than fifteen times. Approximately five out of every eight words are from the first five hundred of the Gates list, and five out of every six are from the first thousand.

---

[1] J. L. Packer, "The Vocabularies of Ten First Readers," *Report of the Society's Committee on Silent Reading*, pp 127–44. Twentieth Yearbook of the National Society for the Study of Education, Part II. Bloomington, Illinois Public School Publishing Co., 1921

The longest first reader contains five times as much material as the shortest. The largest vocabulary load is more than twice the smallest, and the highest average repetition is about four times the lowest. The more recent books tend to have significantly smaller vocabularies and increased repetition of words, and a slightly larger proportion of their words are found in the first five hundred of the Gates list.

A CANADIAN LOOKS AT TEACHER TRAINING

A. R LORD
Provincial Normal School, Vancouver, British Columbia

During the winter of 1935-36 the writer visited a number of United States teachers' colleges and Canadian normal schools. Impressions were received and opinions were formed, perhaps based on insufficient evidence and certainly influenced and prejudiced by a Canadian training and by a participation in the development of the Canadian system. The strength of these opinions and the vividness of these impressions has led to an attempt, in the following pages, to point out some virtues and some defects in each type of school.

HISTORICAL BACKGROUND

Back in the forties of the last century in the Canadian province of Ontario, the government of the day commissioned a Methodist clergyman, Dr. Egerton Ryerson, "to visit the United States and Europe for the purpose of studying the best systems then in operation before preparing a new bill for the improvement of common schools in Upper Canada."

Ryerson went to the United States, to England, Scotland, and Ireland, and to the continent of Europe. In Massachusetts he found something of administrative methods and in Ireland a promising solution of the religious problems, but for the heart, the soul, of his proposed system of education, he went to Prussia. There he found many features of centralized control, of administration, and of curriculum which appealed to him. Unfortunately the Prussian system was intimately linked with the Lutheran church. It had an eight-year curriculum with the last two years leading to confirmation in that church. For a province which had always maintained a reputation for being somewhat intolerant in religious questions, which had just passed through the Clergy Reserves furor, and which was to spend the next century, at least, in disputing over separate schools, such a connection between church and school could not be. Ryerson brought back much of the first six years of the Prussian program but left the seventh and eighth years. He adapted what he brought back, stretched it out, added to it, and fitted it to a pioneer setting. It emerged as a system of education which for several decades was to occupy a leading place in Canadian esteem.

Teachers were necessary. The earlier supply of discharged soldiers and decayed gentlemen was no longer adequate either in numbers or in ability. "Model Schools," already established, were merely better schools. Normal schools came into being, at first in Toronto and later in several other centers. From their inception the supply of teachers was adequate to meet the needs of the province.

Empiricism was the basis of normal-school instruction. Master teachers, men of force and character, retaught the subject matter of the elementary school; their students practiced in the adjacent Model School under the experienced eye of critic teachers and then, diploma-crowned and certificated, sought in their own schools to duplicate what they had seen "at Normal." True, some lectures were given in school management, in administration, and, perhaps, in the history of education, but these were viewed as dreary and impractical things, for the first business of a normal school was to give a definite solution for every classroom problem which might develop. Yet so great were such men as Robertson and Ormiston, so masterly an influence did they exert, that the reputation which Ontario education maintained throughout the nineteenth century was not undeserved.

Western Canada, naturally enough, built on the Ontario pattern. Differences occurred because of local conditions, but they were differences in detail; principles remained the same. As normal schools appeared in Manitoba, in British Columbia, in Alberta, and in Saskatchewan, they one and all provided little in the way of educational principles and theory but much of subject-matter methodology, of reteaching of elementary-school material, and of practice teaching The ideal, not infrequently reached, was that every student should at least sample the teaching of every grade and of every subject during his course—and his course never exceeded a forty-week year.

Going back a few years before Ryerson's time, there is more than a little reason to believe that Horace Mann did for the New England states much the same thing in much the same way that Ryerson did for Ontario. Indeed, it is at least possible that Ryerson was influenced by Mann, for whom he had a great admiration. Certainly, eighty years ago education in the two regions was carried along on similar lines, and, equally certainly, many phases bore evidence of Prussian influence.

Today teacher training in the United States is so far removed from teacher training in Canada that almost the only resemblance is that both graduate teachers. Started in the same source, directed toward the same end, they have followed divergent paths. One has led to a teachers' college with a four-year curriculum, two-thirds academic and one-third professional, superimposed on a 6–3–3 structure; the other to a normal school with a highly professional, rather rigid and quite empirical one-year course following a 6–3–4 or an 8–5 training.

GENERAL AIMS OF TEACHER TRAINING

The broad, general aims of teacher training are easily stated. They are threefold: (1) to arouse in students a zeal and an enthusiasm for their future work, (2) to "train" them as teachers, and (3) to select the fit and to reject the unfit. Broad aims are commonly hazy; an analysis of those cited is necessary.

Arousing enthusiasm.—Normal students possess zeal and enthusiasm to a rather remarkable degree probably because, for the first time within their experience, they are engaged in work which they have personally elected and which leads to a definite goal. While their natural abilities and their cultural and academic backgrounds have limitations, there is practically no limit to the extent or difficulty of the task that they are willing to undertake. With this favorable setting it is the duty of the normal school so to establish these enthusiasms that the youthful graduate will enter on his chosen career, not only with a respect and an affection for it, but also with a desire and a capacity for continued growth.

"Training" teachers.—The term "training" as applied to teachers carries an unfortunate analogy from the animal world. Dogs and apes and horses are trained; teachers should be, and sometimes are, developed. If the chief purpose in the education of a child is to cram

his mind with a more or less temporary mass of factual knowledge, perhaps a "trained" teacher can accomplish the task well enough. If, however, education means the establishment of ideals so that life's problems will be met in a spirit of sympathetic understanding of others, the development of abilities and skills to secure needed information with intelligence and discrimination, and, finally, the acquisition of a relatively limited amount of pure knowledge, then something far removed from "training" becomes necessary and someone vastly superior to a "teacher" must be developed.

The true teacher is a leader and a guide. His classroom reveals a situation which is pupil-centric, where he is conspicuously in the background quietly guiding and directing, where pupils are industriously working for themselves; his curriculum is only a means; he deals with large units of work, not with fragments; he "teaches" nothing that pupils can find for themselves. He does not continually occupy the center of the stage, nor does he "tell" or "show" or even develop by questioning when less obvious but more fruitful methods are available. In his school it is no crime for him to be found seated at his desk.

There are two fundamental elements in the development of teachers of such a type. They must first secure an adequate cultural and academic foundation; on this base must be erected a structure of professional knowledge, abilities, and techniques.

In Canada it has been, and is, the custom to provide facilities for cultural and academic courses only in secondary schools and in colleges or universities. The extent of these prerequisite courses has shown a steadily growing tendency to increase. At present most provinces require, or have given notice that in 1937 they will require, at least Senior Matriculation (first-year university) standing or its equivalent for admission to a normal school Without discussing the adequacy of this standard, it must be pointed out that, despite having attained the required standing, many normal students prove to be sadly lacking in their knowledge of elementary-school subject matter. Either the normal school must provide for the correction of this deficiency, or the students so handicapped must be eliminated.

Professional training, as distinct from academic, involves the development of the principles of education and of the ability to apply these principles in a classroom situation. The former is secured by courses variously known as "Psychology," "Philosophy of Education," "Science of Education," "History of Education," etc.; the latter, through observation of competent teachers, participation in teaching, and detailed instruction in methodology.

It is probably true that, given sufficient maturity on the part of the students, a solid foundation of the principles of education produces the best teachers. There are two reasons, however, why the complete extension of such a procedure to the normal schools would appear to be unwise. In the first place, many entering students are seriously immature in social experience, in academic background, and in ability to think. It is scarcely to be expected that they will meet with more than moderate success in transferring principle into practice or, conversely, that a curriculum which is entirely or even chiefly theoretical will produce successful teachers. In the second place, there is an inevitable period of transition when theory is first converted into practice. It is a period of varying length, perhaps averaging two years and frequently occurring in an ungraded school or in a situation where the guiding hand of a capable principal is not available. It is a period which is good for the teacher but far from good for the pupils; and, unfortunately, when the period is over and the transition is successfully completed, the teacher moves on to other spheres and the pupils are subjected to another novice. It is not unusual for smaller rural schools to be afflicted with this type of experience almost permanently. The solution would seem to lie in a teacher-training curriculum which will give much attention to principles but which will also give sufficient techniques and detailed procedures to carry through the transition stage without undue loss to pupils.

Selecting teachers.—The third purpose of a normal school is to select from among its students those who are competent to teach. Obviously, the earlier this selection is made, the better it will be for all concerned; the ideal situation lies in selection before admission to the school. The only attempts which have been made in Canada to secure this preliminary selection have been on the basis of scholarship, either by raising the general admission standard from fourth-year to fifth-year high-school standing or, as in British Columbia, by limiting attendance and by admitting in order of scholarship merit. A physical examination is also employed, which is a minor factor in determining rejections. In a number of United States institutions a mark substantially higher than the ordinary "passing" mark is required for admission, and, in addition, speech defects and language disabilities are held to be adequate grounds for refusing admittance.

It has been definitely established that the correlation between scholarship and teaching success is too low to possess significance. Unfortunately no better basis than scholarship has been developed. Personality and aptitude tests have not proved satisfactory, and personal interviews, which have sometimes given promising results, are necessarily subjective and are probably unfair to the country student whose social opportunities have been limited.

Selection after admission should be an easier matter, but the presence in our schools of many indifferent and unsatisfactory teachers indicates that further selection is needed. It would seem that our normal schools would be justified in refusing diplomas to any student who failed to attain a reasonable standard in any of the following: (1) teaching ability, (2) personality, (3) knowledge of subject matter, and (4) moral and ethical traits. If such a policy were followed, it would no longer be possible for a normal school to graduate a larger proportion of its students than does any other educational institution.

Such, in some detail, are the major objectives of a normal school. How far and in what manner are these objectives in process of realization in the United States and Canada?

UNITED STATES TEACHERS' COLLEGES

The American Association of Teachers Colleges has formulated certain standards for accrediting teachers' colleges. Among these standards are the following requirements: (1) admission must be from a four-year secondary course or its equivalent; (2) a four-year curriculum, totaling at least 120 semester hours and resulting in a degree; (3) at least ninety clock hours of practice teaching; (4) the presence of a training or practice school as a unit of the teachers' college; (5) a faculty classroom instruction load not exceeding sixteen clock hours per week; (6) a library, with a minimum (for schools with an attendance of less than 500) of 15,000 volumes and a minimum annual appropriation of $2,500.00. (These standards are, for the present, considered desirable but not compulsory.)

It is probably correct to say that these standards have been set up in a laudable attempt to raise the general level of teacher training but that in actual practice they have been very liberally interpreted. If it were possible to say that all United States teachers' colleges attained in full to these ideals, it would follow that their graduates were very much better qualified for teaching than are the products of Canadian normal schools. However, it is not possible so to say. Some institutions appear to have come close to the full spirit of the standards; others (and these include a larger number) have scarcely complied with the letter.

It is important to remember that, in the United States, teachers' colleges are competitors with liberal-arts colleges and are not, as in Canada, engaged solely or even primarily in the work of professional training. An analysis of the courses given in twenty teachers' colleges indicates that approximately two-thirds of the credits required in a four-year curriculum are academic in scope and one-third, including a practicum in teaching, are professional. It would also seem doubtful that the academic courses give an adequate background for the professional training. In one large college, for example, the academic credits for graduation (with a Bachelor of Science degree) are given as follows:

English composition	6
Biological sciences	4
Physical sciences	4
Health education	4
History of civilization	6
Modern social trends	3
Literature	6
Poetry	3
The drama	3
Essentials of art	2
Arts and crafts	2
Dramatic art	3
History and appreciation of art	2
History and appreciation of music	2
Essentials of music	4
Health protection	2
Electives (Latin, 10; French, 10; general mathematics, 3, biology, 7; chemistry, 11; physics, 7; general geography, 3)	24

When it is remembered that one credit represents one hour of class instruction per week for eighteen weeks, it becomes evident that the cultural background of the teacher thus produced can be neither broad nor deep.

This school probably represents the average of those visited. Two were decidedly better; two or three were worse. It is difficult for a person, influenced in his judgment by the Canadian system, to avoid the conclusion that three or perhaps two years of training in a liberal-arts college would be of greater value as a preparation for teaching than that which is now available in most teachers' colleges. There is also the possibility that the quality of instruction is of a higher caliber in liberal-arts colleges. Any expression of opinion on this point, however, would be subjective and out of place.

Nevertheless, the graduate of a teachers' college, measured quantitatively, has from one and a half to two and a half years more academic preparation than the graduate of a Canadian normal school.

Professional training consists of a practicum in teaching and of several courses which may be prerequisite to, or concurrent with, the practicum.

The practicum must consist of at least ninety clock hours of practice teaching. In most schools it considerably exceeds this amount, occasionally to the extent of requiring three hours a day, five days a week, for eighteen weeks. Usually it means one or more hours a day for eighteen *consecutive* weeks in *one classroom situation*, occasionally for nine weeks in each of two situations, and infrequently for six weeks in each of three. The fundamental difference in this respect between Canadian and United States schools appears to be that in the former it is deemed necessary to give a smattering of every grade and every subject while in the latter the preference is to do one thing with reasonable thoroughness. There would seem to be little room for argument as to which is the wiser course if teaching means the development of the abilities of children and not merely the presentation of more or less isolated scraps of subject matter.

Methodology courses are universal in Canada; in the United States they are practically nonexistent. In most teachers' colleges one or more courses treating some phase of psychology, usually of three semester hours' credit, and a course sometimes called "Introduction to Teaching" are prerequisites for the practicum of teaching.

In addition, a course of the seminar type devoted to the immediate needs of the student commonly accompanies the practicum.

"Introduction to Teaching" has great possibilities. It is a broad, integrating course and, when properly interlocked with the concurrent course in psychology, tends to unify the whole curriculum. When well handled, it is accompanied by controlled observation, each period of which is preceded by an introductory outline by the college instructor and followed by a discussion participated in by college instructor, critic teacher, and practice students.

Demonstration or observation lessons are usually conducted by the regular critic teacher of the class, and artificial situations are eliminated insofar as possible. The nature of the lesson is determined by the college instructor, but it is a lesson involving a principle—appreciation, drill, etc.—and not merely one in history or in reading or in arithmetic.

Briefly summarized United States teachers' colleges, as compared with Canadian normal schools, would appear to: (1) provide from two to three years more academic training (with the proviso that the quality is not so high as in a liberal-arts college or university); (2) provide much better library facilities; (3) provide much better demonstration and experimental facilities; (4) provide fewer and longer (in most cases too few and perhaps too long) periods for teaching participation; (5) provide few, if any, methodology courses; (6) vary greatly in the extent and nature of professional courses.

CANADIAN NORMAL SCHOOLS

In Canada the preparation of teachers for the elementary-school field is carried on chiefly, though not exclusively, in normal schools. A small minority, who must be graduates of a university, attend for one year a postgraduate department of education connected with a university. Successful completion of this course entitles the student to receive a certificate valid, in some provinces, in both elementary and secondary schools.

Normal schools in Ontario and the western provinces are very much alike Resemblances are much more marked than are differences. They have been established and developed on the same fundamental principles; differences exist only in connection with relatively unimportant details.

In one important respect, that of centralized authority, there is a wide difference. Ontario normal schools, seven in number, are controlled in principle and in detail by the Department of Education at Toronto. Printed regulations determine the courses to be given, the number of instruction periods in each, the dates when each course shall commence and conclude, arrangements for practice teaching, etc., to such an extent that a casual observer can see little opportunity for the development and application of local initiative. In all the western provinces principles of administration and organization are determined by the local department of education, but the individual school has a considerable latitude in applying these principles.

What of resemblances? In Ontario the *Regulations and Examinations of the Normal Schools* states that "the program of instruction for each class in the course, exclusive of observation and practice teaching, will require about thirty class periods of forty-five minutes each weekly during the session." Roughly a third of these periods are given to such practical subjects as art and music and two-thirds to professional and methodology courses. The latter require, or should require, a considerable amount of preparation, while the former need much less. In every western province a similar situation exists.

This program would appear to have several unfortunate consequences. Students are forced through the deadening experience of six or seven daily class periods when they chiefly listen to someone talk. Masters are forced to adopt the lecture method of instruction, since it is impossible to ask students to prepare adequately for each of six or seven periods; it follows that masters are compelled to practice an entirely different method of instruction from that which is advocated by, at least, the more progressive of them.

Finally, the general caliber of normal-school instruction is maintained at a secondary-school level when it has every right to be on a par with college or university work. The "student load" is almost certainly the greatest weakness in Canadian normal schools; it rightly belongs to the era of "training" teachers but not to the period of "developing" them.

Courses offered in the various normal schools differ little. They may be divided into three groups (exclusive of teaching observation and participation): professional, practical, and methodology. The professional group includes "School Management," which is given in every school; "History of Education"; "Science of Education"; "Philosophy of Education"; "Psychology"; "School Administration"; and "Technique of Teaching." Five of these are required in Saskatchewan and two in Ontario—the two extremes. An analysis of the content of these courses reveals that there is no uniformity in the use of any terms save "History of Education" and "Psychology" and that no normal school has determined its professional curriculum in accordance with the principles of the science of education.

Methodology courses require most of a student's time and effort in all schools. Every subject of the elementary-school program is represented by a "methods" course at some normal school. Reading, literature, language, spelling, writing, history, geography, health, art, music, home economics, mathematics, and nature study are universal. Grammar, agriculture, character and citizenship, algebra, geometry, advanced reading, advanced English, elementary science, manual training, library methods, and primary methods occur in one or more schools.

In one school every student must take "one period per week in School Management, one in History of Education, one in Philosophy of Education, two in Reading and Literature, two in Language, two in Psychology, one in Citizenship and Character Education, two in History, two in Geography, two in Health Education, two in Art, two in Music, two in Home Economics, one in Mathematics, one in Nature Study and Agriculture, one in Technique of Teaching, one in Community Singing, one in Spelling, Writing and Library, two in Physical Training, one in Library Science"—a total of thirty periods a week in twenty subjects. In another, thirty-seven periods a week are required in twenty subjects. It would be interesting to observe a cross-section of a student's mind at the end of such a week.

The content of methodology courses varies with individual instructors rather than with schools or provinces. It often consists in a reteaching of elementary-school subject matter, much less often in principles of educational theory, perhaps most frequently in a combination of both. Elementary-school subject matter should not need reteaching for its own sake, since inadequate preparation in this respect is surely ground enough for requiring a student's withdrawal; reteaching for any other reason and to any considerable extent again belongs to the era of "training" teachers. The application of theoretical principles must be illustrated by reference to subject matter, and it is in this connection only that a limited amount of "reteaching" is fully justified.

It is realized that little scientific basis exists for the courses given in Canadian normal schools, that there are far too many courses, that there is much overlapping, and that many methodology courses require an inferior type of mental ability on the part of students. In several provinces a study of the entire teacher-training field is in progress, and several marked changes have already occurred in certain schools. It is at least possible that, in the not too-distant future, further developments may include: (1) raising the academic standards for teachers of elementary schools; (2) limiting the student load to a maximum of twenty class periods a week; (3) requiring a university level of instruction; (4) providing courses in principles of education (psychology, administration, etc.) and in principles of teaching; (5) bridging the gap between theory and practice by providing (*a*) a few courses in subject-matter techniques and (*b*) a demonstration school where normal students are introduced to a teaching situation by observation and participation for practice and not under criticism; (6) providing practice teaching of fewer and longer periods (possibly four or five weeks, with one class, in Grades I, II, III, or IV and a similar period with one class in Grades V, VI, VII, or VIII would be a reasonable experience).

FUNCTIONS OF DIVISIONS OF ELEMENTARY EDUCATION IN STATE DEPARTMENTS OF EDUCATION

FLOYD JORDAN
Northwestern State Teachers College, Alva, Oklahoma

This study concerns the functions performed by the employees of the divisions of elementary education in state departments of education. In 1934-35 a master check list of duties was prepared and sent to the chief state school official in each of the forty-eight states, with the request that it be handed to the head of the elementary-school division for checking. The directions on the check list asked the head of the division to check the functions which were performed and to add any functions which were performed by his division but which were not included on the list. Thirty-six of the chief state school officials either returned completed check sheets or reported that no elementary divisions exist in the state departments of their states. Twenty-nine, or 80.6 per cent, of the state departments that replied include elementary divisions in their organizations. The check list also asked for information concerning the titles, tenure, and salaries of the employees.

The functions that are performed by the twenty-nine divisions in the thirty-six states reporting are shown in Table I. This tabulation shows that there is no agreement on any function performed in the elementary divisions of state departments. Only sixteen of the functions are performed by half or more of the divisions, while twenty-four functions are performed by less than half the divisions. A fourth of the functions are performed by five divisions or less. This inconsistency indicates that the states are not agreed on what functions should be performed by the elementary division of the state department of education.

There is also variation in the titles of the persons who head the elementary divisions. Of the twenty-nine divisions reported, seventeen are headed by "supervisors," six by "directors," three by

TABLE I

FUNCTIONS PERFORMED BY DIVISIONS OF ELEMENTARY EDUCATION IN TWENTY-NINE STATE DEPARTMENTS OF EDUCATION

Function	Number of Divisions Performing Function
Address county teachers' associations on matters of vital importance to school	26
Devise plans for standardization of elementary schools	26
Take care of all correspondence	26
Visit all counties	25
Prepare suggestive daily programs	25
Speak to parent-teacher associations and service clubs	25
Prepare circular letters to county superintendents, teachers, trustees, etc.	24
Prepare lists of elementary-school library books from year to year	23
Familiarize county superintendents, teachers, and trustees on educational problems and policies	23
Check and file reports concerning elementary schools	22
Edit state courses of study for elementary schools	22
Assist in scoring elementary schools	20
Supervise the teaching in elementary schools	19
Assist in consolidation of schools	19
Co-operate with department in preparation of monthly bulletin	16
Plan teachers' institutes	15
Serve as active member on survey committees of the state	14
Check certification of teachers	14
Check on schools to see that physical education is given in accordance with state law	13
Keep records of teachers	13
Meet with county elementary-school commission	11
Determine schools in each county that meet the requirements for state aid	11
Prepare cards for rating teachers	10
Oversee transportation	9
Rate teachers	8
Score teachers	8

TABLE I—*Continued*

Function	Number of Divisions Performing Function
Hold meetings of the state elementary-school commission	7
Prepare blanks for county superintendents and trustees on attendance and finance	7
Assist county board in fixing local levy	6
Serve on legislative committee of the state teachers' association	6
Administer state equalization fund	5
Audit each equalization report	4
Prepare and distribute all blanks and records pertaining to equalization fund	4
Serve on legislative committee of the public-school officers' association	4
Audit revenue from each unit for equalization purposes	3
Serve as executive secretary of state elementary-school commission	2
Work with county supervisors of rural schools	1
Serve on committees of state educational association	1
Approve supervisors' study courses	1
Conduct county superintendents' annual conference	1

"agents," two by "commissioners," and one by a "secretary." The title conferred on the head of a division gives little clue to the duties involved in the performance of the functions.

The tenure of the division heads was checked from 1912 to 1933. The average tenure was 9.4 years. The longest period that any individual had served was twenty-two years, and two were appointed to their positions in the last year studied. The year of the greatest number of appointments was 1929, when five heads were appointed.

There is a wide range in the annual salaries of the heads of the elementary divisions. The lowest salary was nine hundred dollars; the highest, five thousand dollars. The person who received the lowest salary also received equal amounts from two other divisions However, the head of the division was employed for nine hundred dollars, and only that amount was included in the budget for the elementary-school division. The average salary for heads of the elementary-school divisions was $3,335.

The lack of agreement among the states in the matters of titles, tenure, and salaries of the heads of the elementary-school divisions may indicate the relative importance attached to this division of the state departments of education. However, these factors are relatively unimportant in comparison with the lack of agreement concerning the functions performed by the divisions. This lack of agreement apparently indicates that the functions have been assigned to the division without due regard to their appropriateness as functions for the division. It would seem that a careful analysis should be made of the appropriate functions to be performed and that the functions should be assigned on the basis of the analysis. Such an analysis would in many instances, no doubt, necessitate the reorganization of the entire state department of education before all the divisions could operate together harmoniously.

THE ACTIVITIES OF AN ELEMENTARY-SCHOOL COUNCIL

EMMA FEUERSTEIN AND MARY R. MARTIN
Lincoln Consolidated School, Michigan State Normal College, Ypsilanti, Michigan

The elementary-school council of Lincoln Consolidated School is maintained to satisfy certain definitely felt needs within the school. Its function is to help children discover and use opportunities for service and thus to provide a broader experience in active citizenship than can be given in the classroom. Every school offers a great number of problems which might be recognized and solved in an intelligent way by the children if they were but given the opportunity. The services rendered by a council will vary according to the needs of the particular school situation.

ORGANIZATION AND WORKING PLAN

The elementary council of Lincoln Consolidated School has been in existence since the establishment of the school some twelve years ago and during this time has undergone an evolutionary development. It is composed of two members from each of the elementary-grade rooms except the kindergarten. Since the school is organized on the quarter basis, the members are elected for a term of three months. This short term of membership, although it necessitates the use of a high percentage of the council time to organize the activities, offers a large number of children the opportunity to participate in these activities. Practically all the children in the school are members of the council at some time while they are enrolled in the elementary grades. The pleasure shown in serving on the council and the growth evidenced by its members more than justify the break in continuity with the changing membership.

The officers of the council are a president, a vice-president, a secretary, and an assistant secretary. A treasurer has recently been added because the council is carrying on its first activities involving the use of money. Two faculty members act as advisers to the council

One council meeting of about forty-five minutes is held at a regular time each week in a room in which no class is scheduled. Extra meetings are held as need arises. At various times throughout the year the council is invited to conduct its meeting in one of the classrooms. This arrangement gives the children in the various classrooms the opportunity of seeing how the council is conducted and thereby arouses a deep interest in, and an understanding and appreciation of, the work that the council is trying to accomplish.

Practically every activity carried on by the council has originated in some one of the home rooms. The project is presented to the council by a council member of the home room in which it originated. Occasionally the principal or one of the other members of the faculty presents a problem which is of interest to all the elementary grades. After the problem is taken up by the council, it is referred back to the home rooms and is there discussed before final action is taken. The principal is consulted regarding the advisability of a major enterprise before it is planned. At the completion of each major activity the council evaluates the work accomplished and invites each home room to report its evaluation through its council members. The principal and the faculty members are encouraged to give their personal evaluations.

When first organized, the council had as its chief purpose the elimination of such practices as running and shouting in the hall, crowding and pushing on the stairs, wasting paper towels, and other objectionable habits. As time has gone on, problems of this nature have been referred to home-room groups, where they have been dealt with very effectively. The council is now giving its time to more constructive work.

ACTIVITIES OF THE COUNCIL

Criteria for the selection of activities.—When an activity is selected for the elementary council, the following criteria are kept in mind.

1. Is it interesting to children in these grades?
2. Is it within the comprehension of the group?
3. Does it enrich the regular curriculum?
4. Does it encourage initiative and originality?
5. Does it enlarge the children's horizon?
6. Does it develop responsibility?

7. Will it lead to further interests?

8. Will it help the children to assume their responsibilities in their community?

9. Will it help the children to assume a more co-operative relation with their classmates, the faculty, and the school as a whole?

10. Will it promote a worthy use of leisure time?

List of activities.—In the past two years the council has concerned itself with the following activities: (1) arranging for a school visiting day for parents; (2) making a list of persons in the community who, because of their interest and experience, are able to contribute to the enrichment of the school's program; (3) promoting hobbies and conducting a hobby show; (4) sponsoring and conducting a pet show; (5) giving assembly programs to promote council activities; (6) improving assembly routine; (7) raising funds with which to buy a picture for each elementary-grade room; (8) sponsoring a birdhouse-building contest; and (9) sponsoring a school newspaper.

Visiting day for parents.—While the parents are always welcome, a special effort is made to have them visit the school and observe the regular work on one day each year, usually during the first week in November. This visiting creates a better understanding of the activities in the school's program and arouses a deeper and more sympathetic interest in the affairs of the school than any program of entertainment that could be offered. An attempt is made to anticipate every need that a visitor might have while in the school A list of these needs is made, and the council members decide which can be taken care of by the various home rooms. A child or a group of children is appointed to meet each of these needs. Appointments are made by the council members after conferring with the home-room teachers in whose rooms the appointed children work. If the appointed children are not certain of what they are to do, the council members train them for their work.

The following tasks have been assigned to various persons and committees: (1) writing invitations for the kindergarten and the first-grade children to take home to their parents; (2) writing notes to two of the mothers, inviting them to pour tea and coffee at the social hour following the dismissal of school; (3) writing a notice to be published in the local paper; (4) showing visitors where to park their cars; (5) greeting visitors at the door; (6) showing visitors where to put their wraps; (7) taking visitors to the classrooms; (8) providing extra chairs in the classrooms; (9) arranging for the serving of refreshments after school by enlisting the help of the home-economics department in preparing the food to be served to parents during the social hour; (10) assisting in the serving of refreshments; (11) caring for visiting children under school age during the social hour; and (12) introducing the principal to the parents at the tea.

After the visiting day the council evaluates its work and makes a record of the work that it did well, with a list of constructive suggestions for improving visiting day the next year. Council members are encouraged to bring constructive suggestions from members of their home rooms and from their parents. The advisors ask the faculty members for their written criticisms. These criticisms are helpful in determining changes to be made in the next year's visiting day.

Enriching the curriculum by securing outside assistance.—The elementary grades have received valuable help from parents who have lived for a time in foreign countries, who have had experiences in some industry, or who have skill in some simple art or craft. Last year the council made a survey of the community to find persons who would be willing to give their services to enrich the curriculum by telling of their experiences, demonstrating their skill, or teaching simple processes. Growing out of the regular curriculum, this activity has in turn enriched and supplemented it.

Hobby show.—Many of the children were carrying on hobbies during their leisure time. The council suggested that each elementary-grade room prepare a list of the names of such children and the types of hobbies in which they were interested. The council appointed a committee to assemble and classify these lists in a general report. This report was then sent to each elementary-grade room. Many children having like hobbies visited other rooms to see and compare their hobbies. Some children started hobbies after seeing the interesting activities in which other children were engaged. At a general exhibit of school work each room arranged to display its hobbies.

As an outgrowth of this activity, it was decided in 1935-36 to have all grades display their hobbies in one central place so that the children interested in hobbies would have the opportunity to see them and examine them more closely. This hobby exhibit was introduced at an assembly given by the council. Children with unusual and interesting hobbies were invited to show them and discuss them briefly. This exhibit again caused many children to become interested in starting hobbies of their own. Some of the parents exhibited their hobbies with those of the children.

Pet show.—A pet show is being planned for 1936–37. It is coming as an outgrowth of the hobby exhibit. It will be conducted as a part of a general community-day program. Since the school is in a rural community, the children have a great variety of pets and are much interested in them. The council, after receiving suggestions from the various rooms as to how the pet show might best be conducted, is making the necessary arrangements. In this case, as in all other activities sponsored by the council, committees from the various rooms will be appointed to assist the council. The children will have many pleasant experiences through participating in the pet show. The pupils will learn how to prepare pets for exhibit, how to protect them from insect pests, and how to exhibit their desirable qualities. It will also open up an entirely new field of thinking for some children with respect to possible kinds of pets.

Improving assembly routine.—The weekly assembly programs have been opened by the flag salute and the singing of "America," both of which were being done incorrectly. A boy scout in the high school was requested to teach the flag salute to all the council members. They in turn took the responsibility of teaching the words and the proper manner of saluting the flag to their home rooms. The help of all the home-room teachers was solicited by the council members in teaching the words of "America," and the music department assisted by teaching the melody.

It was suggested to the council that the children were occasionally rather boisterous in their applause at the end of the assembly program. Correct and incorrect ways of applauding were discussed, and it was suggested that the council members talk over this problem with their home rooms.

Raising funds for pictures.—Many of the elementary-grade rooms have no pictures of permanent art value. By conducting a sale of old papers and magazines, having sales of homemade candy, and by requesting penny contributions, the council is raising money to purchase pictures for the various rooms. This activity gives each child an opportunity to help in giving something of permanent value to his school which will be enjoyed by others as well as by himself.

Contest in building birdhouses.—The elementary-science department asked the council to sponsor a contest in building birdhouses. The council introduced the contest, and the manual-training department assisted those children regularly enrolled in shop classes in the actual building. All the children furnished their own materials. The children not enrolled in shop classes were given necessary assistance by their parents and teachers. A special assembly was held at the end of the contest, when all the contestants exhibited their birdhouses.

Elementary-school newspaper.—While discussing the sale of old newspapers, the council originated the idea that it would be interesting to publish a newspaper. The pupils in each room are invited to contribute news that they believe will be of interest to other rooms. The teachers of the intermediate grades, with the assistance of the home-room children, have volunteered to take turns in assembling these items in form to be mimeographed. This newspaper is issued bi-weekly. It gives the children of the elementary grades the opportunity of sharing their experiences and, at the same time, stimulates a lively interest in effective writing.

EVALUATION

In carrying out the activities of the council, the pupils have developed poise, social consciousness, and such desirable traits as responsibility, dependability, initiative, respect for the opinions of others, unselfishness, and an appreciation of the help of others. Participating in the council has helped children to develop ability in organization of ideas and materials, to think critically, and to be sensitive to the needs in various social situations. Children elected to the council are honored and, at the same time, are given a position of responsibility and trust. Rare indeed is the child who will not measure up to this challenge.

FACTORS RELATED TO WITHDRAWAL FROM JUNIOR HIGH SCHOOLS IN MINNEAPOLIS

HARL R. DOUGLASS
University of Minnesota

KATE WIND
Jefferson Junior High School, Minneapolis, Minnesota

PURPOSE OF STUDY

The purpose of this investigation was to measure the differences in age-grade status, mental ability, school marks, and socio-economic status of pupils who were eliminated from the junior high schools of Minneapolis and of pupils who were retained through Grade IX. Comparisons involved two groups of pupils in the junior high school grades, an eliminated group (1,355 in number in the preliminary study and 415 in number in the intensive unit) and a retained group of 1,213 pupils. Pupils who left the city, who transferred to private schools, or who withdrew on account of illness were not included. The 415 pupils investigated intensively were interviewed in their homes by school counselors, visiting teachers, or attendance counselors. Of these, 232 were boys and 183 were girls (in junior high school grades boys withdraw in larger numbers than girls). Of the withdrawing pupils, 50 per cent left while in Grade IX, and only 25 per cent left before finishing one-half of Grade VIII and 13 per cent before beginning Grade VIII.

RETARDATION AS A FACTOR OF WITHDRAWAL

As may be seen in Table I, all the eliminated pupils were retarded. This fact is the logical result of a well-enforced statute requiring attendance until the age of sixteen, together with the enlightened attitude of the school people, labor leaders, and employers of Minneapolis with respect to work permits Of the 1,213 retained pupils, only 42 were retarded as much as one year or more, while 1,077 withdrawing pupils for whom retardation could be calculated were from one year to four and a half years behind their grades. The median age at withdrawal was 16.3 years, and only a fourth of the withdrawing pupils remained until the age of sixteen and a half.

In Minneapolis, under the prevailing promotion practices, practically all retarded pupils are eliminated before Grade X, and only in rare cases are normal or accelerated pupils eliminated before reaching that level. One in eight of the retained pupils is retarded. The median retained pupil will be almost exactly "at age" for his grade, while the median eliminated pupil will be retarded 2.21 years. Elimination does not begin seriously until about the middle of Grade VIII.

TABLE I

DISTRIBUTION OF WITHDRAWING PUPILS AND RETAINED PUPILS ACCORDING TO AGE-GRADE STATUS

Age-Grade Status	Withdrawing Pupils		Retained Pupils	
	Number	Per Cent	Number	Per Cent
Normal	0	0.0	655	54.0
Retarded	1,086	100.0	155	12.8
Accelerated	0	0.0	403	33.2
Total	1,086*	100.0	1,213	100.0

* Does not include 269 withdrawals from the Boys' Vocational School.

MENTAL ABILITY AND SCHOOL MARKS

Pupils in the Minneapolis schools, at the time the data of this study were gathered, were classified into five groups (A, B, C, D, and E) on the basis of scores on the Haggerty Intelligence Examinations and the Terman Group Test of Mental Ability. The data in Table II indicate that the retained pupils tended to be congregated in the normal and the superior classifications, and the eliminated pupils in the normal and the inferior levels. This tendency was more pronounced for girls than for boys.

Even more pronounced, as might be expected, were the differences of the two groups with respect to marks received in junior high school, which are shown in Table III. The median mark of the withdrawing pupils was almost exactly midway between D and C, while that of the retained pupils was a strong C+. The bi-serial coefficient of correlation[1] between scholarship and persistency in school was .397 ± .009.

TABLE II

DISTRIBUTION OF WITHDRAWING AND OF RETAINED PUPILS ACCORDING TO ABILITY GROUPING ON BASIS OF INTELLIGENCE

ABILITY GROUP	WITHDRAWING PUPILS		RETAINED PUPILS	
	Number	Per Cent	Number	Per Cent
A.	4	1.0	162	13.4
B.	20	4.8	224	18.5
C	139	33.5	416	34.3
D.	108	26.0	209	17.2
E	133	32.0	159	13.1
Unknown	11	2.7	43	3.5
Total	415	100.0	1,213	100.0

TABLE III

AVERAGE SCHOOL MARKS RECEIVED IN JUNIOR HIGH SCHOOL BY WITHDRAWING AND RETAINED PUPILS

MARK	WITHDRAWING PUPILS		RETAINED PUPILS	
	Number	Per Cent	Number	Per Cent
A or B	14	1.2	240	19.8
C.	580	52.0	836	68.9
D	470	42.2	136	11.2
F	51	4.6	1	0.1
Total	1,115*	100.0	1,213	100.0

* Marks were not available for all withdrawing pupils.

BIRTHPLACE AND SOCIO-ECONOMIC STATUS

With respect to place of birth, the chances of remaining through junior high school favor pupils born in Minneapolis and, slightly, those born in Minnesota. They are not at all favorable for foreign-born children, about four in five of those included in the study failing to remain through Grade IX. The differences of the two groups in scores on the Sims Score Card for Socio-economic Status were pronounced, the upper quartile of the withdrawing pupils barely exceeding the lower quartile of the persisters. As in the case of mental ability, more boys than girls of the upper levels withdrew. Parents of the retained pupils were much better educated on the average than those of the eliminated pupils, more than twice as many of the former having had at least some high-school training and almost three times as many having gone to college. The bi-serial coefficient of correlation between the Sims Score Card for Socio-economic Status and retention was revealingly high (.624).

---

[1] The bi-serial coefficient of correlation is computed between two variables one of which is expressed in various degrees or in a frequency distribution and the other,

The bi-serial coefficient of correlation between number of books in home and persistence of pupils was .366. In 60 per cent of the homes of the withdrawing pupils, as compared with 30 per cent of the retained pupils, there were less than twenty-five books. In the homes of 30 per cent of the latter, as compared with 7 per cent of the former, there were 125 or more books. In 47 per cent of the homes of the eliminated pupils, as compared with 12 per cent of the retained pupils, no magazine was taken regularly. The bi-serial coefficient of correlation between number of magazines taken and retention was .50.

Table IV shows that the withdrawing pupils came most heavily from the homes of laborers. Only 2 of the 178 children of professional and higher executives and only 24 of the 303 children of commercial-service workers and business proprietors failed to remain through junior high school, as compared with 258 of the 660 children of laborers included in the investigation.

The outstanding lack of books and magazines of any sort, to say nothing of books and magazines of educational utility, should be extremely revealing to teachers, especially teachers in the fields of English, history, and social studies. The background of pupils com-

---

though capable of being similarly distributed, happens in the particular instance to be classified in two categories only (in this case, eliminated and retained). The formula and detailed explanations are given in practically all but the simplest treatments of statistical methods. The formula is not strictly applicable to the data here, but the resulting coefficient is a serviceable approximation ing from the poorer homes, in which they have had no opportunity to supplement school instruction with reading at home, is very probably overestimated. Home work is no doubt assigned in the preparation of which these pupils are at a distinct disadvantage irrespective of their native ability and willingness.

TABLE IV

DISTRIBUTION OF FATHERS OF WITHDRAWING PUPILS AND OF FATHERS OF RETAINED PUPILS ACCORDING TO OCCUPATION

OCCUPATION OF FATHER	FATHERS OF WITHDRAWING PUPILS		FATHERS OF RETAINED PUPILS	
	Number	Per Cent	Number	Per Cent
Professional and higher executive	2	0.5	176	14.5
Commercial service and business proprietors	24	5.8	279	23.0
Artisan-proprietor	65	15.7	331	27.3
Skilled laborer	176	42.4	263	21.7
Unskilled laborer	82	19.7	139	11.4
Not stated	66	15.9	25	2.1
Total	415	100.0	1,213	100.0

COMPARATIVE SIGNIFICANCE OF FACTORS

It seems clear from the data of this study that the two factors most closely associated with elimination or retention in the Minneapolis junior high schools are retardation and socio-economic status[1] and that they are most closely related to persistence, as is shown by biserial correlations of .876 and .624, respectively. General mental ability is also closely related but is definitely secondary in importance to retardation and to socio-economic status, probably in part because of the degree to which measures of the latter two factors are also measures of intelligence as well as measures of conditioning factors, such as high ideals, educational and study opportunities and stimuli in the home, family tradition, ability to clothe and feed children, and intellectual interests.

---

[1] Collins and Campbell report data which show that socio-economic status is a factor most closely associated with failure in junior high schools: (a) Harl R. Douglass and J. H. Collins, "A Study of the Relationship of Certain Factors to Failure among Superior Pupils in a Junior High School for Negroes," *Journal of Negro Education*, V (October, 1936), 599–601. (b) Harl R. Douglass and Ina Campbell, "Factors Related to Failure in a Minneapolis Junior High School," *Elementary School Journal*, XXXVII (November, 1936), 186–89.

School marks likewise are less closely associated with retention (bi-serial coefficient of correlation of .397) than are retardation and socio-economic status. Apparently, beyond the lower level of passing, increased rank in marks is little related to persistence at the junior high school level—a finding which is contrary to the results of investigations at the senior high school level. It is interesting to note that the number of magazines in the home is correlated almost as closely with persistence in school as is the score on socio-economic status. If the total score is not available, a careful report by pupils of the number of magazines taken should be almost as useful, being more closely associated with retention than intelligence or previous marks.

SELECTED REFERENCES ON PUBLIC-SCHOOL ADMINISTRATION. I

WILLIAM C. REAVIS AND NELSON B HENRY
University of Chicago

The bibliography herewith presented consists of selected references in the field of public-school administration for the period November 1, 1935, to October 31, 1936. The references are classified according to the following topics: (1) general administration, (2) state school administration, (3) city school administration, and (4) supervision. References listed under (5) teaching staff, (6) school finance, (7) business management, and (8) public relations will be published in the February number of this journal.

GENERAL ADMINISTRATION

1. BOLTON, FREDERICK E. "The Relation of the Federal Government to Education," *School and Society*, XLIII (January 25, 1936), 105–11.

   Suggests a centralized commission to administer all educational enterprises of the federal government.

2. BUCK, GEORGE L. "What's Next for Texts?" *Nation's Schools*, XVIII (October, 1936), 25–26.

   The report of an inquiry among publishers with reference to (1) conditions and measures which are stimulating a revival of textbook-purchasing on the part of school systems and (2) certain influences which are thought to be a hindrance to this movement

3. CHAMBERS, M. M. (Editor). *The Fourth Yearbook of School Law, 1936.* Washington: M. M. Chambers (744 Jackson Place), 1936. Pp. 154.

   Presents the annual review of educational law as it comes from the courts for the year 1935 and a supplement on "How To Find the School Law"

4. DAVIS, MARY DABNEY. "The Housing of Schools for Young Children in European Countries," *American School and University*, VIII, 237–44. New York: American School Publishing Corp., 1936.

   Discusses the general standards for buildings in which the schools for young children are housed in most European countries

5. HILL, CLYDE MILTON (Editor). *Educational Progress and School Administration.* New Haven, Connecticut: Yale University Press, 1936 Pp. xvi+400.

A symposium by former associates written as a tribute to Frank Ellsworth Spaulding on his retirement from active service in Yale University.

6. JUDD, CHARLES H. "The Significance for Textbook-making of the Newer Concepts in Education," *Elementary School Journal*, XXXVI (April, 1936), 575–82.

   Notes certain changes in instructional procedures which imply the provision of larger quantities of reading matter for the pupils in the schools Suggests the desirability of a change in the type of textbook publications to provide adequate teaching materials in the form of pamphlets and books of smaller size.

7. MORT, PAUL R. "The Place of Local Initiative in Educational Organization," *Reconstructing Education through Research*, pp 115–24. Official Report of the American Educational Research Association, 1936. Washington: American Educational Research Association of the National Education Association, 1936.

   Reviews the historical status of local initiative in the American school system and outlines investigations being carried on under the direction of the author.

8. "Platform of the National Education Association," *Journal of the National Education Association*, XXV (January, 1936), 29–31.

   The platform presented is an outgrowth of past resolutions adopted by the National Education Association.

9. PRESTON, EVERETT C. *Principles and Statutory Provisions Relating to Recreational, Medical, and Social Welfare Services of the Public Schools* Teachers College Contributions to Education, No. 661. New York· Teachers College, Columbia University, 1935. Pp. vi+142.

   A review of statutory provisions for certain auxiliary services commonly included in the program of the public schools.

10. PUNKE, HAROLD H. *The Courts and Public-School Property*. Chicago: University of Chicago Press, 1936. Pp. xvi+314.

    A discussion of the principles underlying the authority of school boards in the acquisition of school property and a review of the important court decisions on this question.

11. PUNKE, HAROLD H "Educational Implications of Recent Changes in Farm Population," *Elementary School Journal*, XXXVI (February, 1936), 436–45.

    A careful analysis of census data from the point of view of the effect of population changes in rural areas.

12. SAMUELSON, AGNES. "Turning the Spotlight on Rural Education," *Nation's Schools*, XVII (March, 1936), 33–34.

    A plea for more effective planning for the improvement of educational opportunities in the rural areas of the United States.

13. SEARS, JESSE B. "Getting the Schools Out of the Depression," *Elementary School Journal*, XXXVI (February, 1936), 417–23.

Suggests that the financial and the educational aspects of the effects of the depression require separate and distinct consideration. The author makes specific suggestions with respect to the attack on each of these problems.

14 SNEDDEN, DAVID. "American Education in 1960," *Teachers College Record*, XXXVII (April, 1936), 625–43.

An interesting prophecy concerning the progress that the public schools may reasonably be expected to achieve by 1960.

15 STODDARD, A. J. "The Public's Schools," *Nation's Schools*, XVII (March, 1936), 16–19.

A stimulating discussion of the functions of a public-school system in a democracy.

16. STUDEBAKER, JOHN W. "An Overview of the Civilian Conservation Corps," *Junior-Senior High School Clearing House*, X (November, 1935), 134–38.

Reviews the problems and the triumphs of the Civilian Conservation Corps, with special attention to its educational program.

17. WHIPPLE, GERTRUDE. *Procedures Used in Selecting School Books.* Chicago: University of Chicago Press, 1936. Pp viii+176. (A brief report of this investigation is given in *Elementary School Journal*, XXXVI [May and June, 1936], 665–73, 760–75; XXXVII [September, 1936], 45–57.)

Reports an extensive investigation of procedures followed in selecting textbooks for use in city school systems and for state adoption.

STATE SCHOOL ADMINISTRATION

18 AKERLY, H. E. "Has State Aid Actually Equalized Educational Opportunity?" *Nation's Schools*, XVII (January, 1936), 16–17.

An argument for modification of state-aid programs to provide some means of stimulating economy and efficiency in administration.

19. ALMACK, JOHN C "Historical Development of School Administration," *School and Society*, XLIII (May 9, 1936), 625–30.

In the light of the earlier experience of schools in America, the author argues for the maintenance of a high degree of local control in the organization and administration of public schools

20 CAMPBELL, RAYMOND GUY. *State Supervision and Regulation of Budgetary Procedure in Public School Systems.* Teachers College Contributions to Education, No 637. New York: Teachers College, Columbia University, 1935. Pp. vi+112.

An inquiry based on examination of school codes, questionnaires to state departments of education, and interviews with state officials

21. CHAMBERLAIN, LEO M., and MEECE, LEONARD E *The Local Unit for School Administration in the United States:* Part I, pp. 44, Part II, pp 56. Bulletin of the Bureau of School Service, Vol. VIII, Nos. 3 and 4. Lexington, Kentucky· College of Education, University of Kentucky, 1936.

Part I of this study broadly surveys the basic and intermediate units of school organization and control in the forty-eight states. Part II presents the characteristics of the various local systems for school control and indicates the trends in the reorganization of units for administrative purposes.

22. CHAMBERS, M. M. "Two Major Issues in State Administration," *Nation's Schools*, XVII (April, 1936), 25–26.

    A discussion of (1) the lack of unity in the administration of the various educational agencies of the states and (2) the relation of educational administration to the agencies of fiscal administration in state government.

23. COVERT, TIMON. *State Provisions for Equalizing the Cost of Education.* United States Office of Education Bulletin No. 4, 1936. Pp. vi+50.

    An informative report of the amount of school aid contributed by the different states from 1900 to 1934; a descriptive account of the state-aid plans of Delaware, North Carolina, and West Virginia; and a discussion of the significance of methods of apportioning state aid.

24. ENGELHARDT, FRED. "State-wide Planning for School Buildings," *American School and University*, VIII, 28–30 New York: American School Publishing Corp., 1936.

    The author of this article believes that state-wide planning for school-building needs is as vital to equality of educational opportunity and to economy as is city-wide planning

25. KEESECKER, WARD W. "Nation-wide Trends in State Legislation," *School Life*, XXII (October, 1936), 39, 59–60.

    Notes recent legislative trends in the direction of: (1) an extension of state administrative control, (2) increased state aid, (3) an extension of state control over school expenditures.

26. LEET, GLEN, and PAIGE, ROBERT M. (Editors) *Property Tax Limitation Laws*. Public Administration Service Publication, No 36. Chicago: Public Administration Service (850 East Fifty-eighth Street), 1936 (revised). Pp. 96

    A revision of an earlier important publication presenting arguments advanced by twenty-four tax experts for and against tax-limitation measures

27 MERRILL, HAROLD. "State Planning Boards Study School Planning and Finance," *American School and University*, VIII, 20–25. New York: American School Publishing Corp., 1936.

    Discusses the scope and character of state planning boards in relation to public-school organization and support.

28. MORRIS, EMMET L. "The Iowa State School Accounting System," *American School Board Journal*, XCII (April, 1936), 27–29.

    Discusses and illustrates the system of financial accounting in the schools of Iowa made necessary by legislative enactment in 1933.

CITY SCHOOL ADMINISTRATION

29. ALLEN, FRANK E., HUNT, HEROLD C., and JENSEN, FRANK A. "Trends in Textbook Placement," *Nation's Schools*, XVII (May, 1936), 33-34.

A report of an inquiry concerning methods of providing textbooks for pupils in the schools of cities with populations of twenty-five thousand or more.

30. BOWMAN, LEONARD L. "Democratic School Administration through a Local School Code," *American School Board Journal*, XCI (December, 1935), 15-16, 71-72.

Discusses school-board rules and regulations as aids in democratic educational administration

31. BROADY, KNUTE O. "Is an Adequate Program of Health and Physical Education Feasible in a Small School System?" *Educational Administration and Supervision*, XXII (January, 1936), 20-28.

Suggests methods of overcoming the obstacles in the way of effective programs of health and physical training in small school systems

32. DOUGHERTY, JAMES HENRY; GORMAN, FRANK HERMON, and PHILLIPS, CLAUDE ANDERSON. *Elementary School Organization and Management* New York: Macmillan Co., 1936. Pp. xx+454.

A treatment of elementary-school organization and management written specifically with the needs of the classroom teacher in mind. The book possesses value for the beginning principal but is too elementary for experienced principals

33. DURLAND, EDNA; LEISTIKOW, LYDIA; and DALTHORP, CHARLES J "In Lieu of Report Cards," *Nation's Schools*, XVIII (October, 1936), 27-30.

An account of how one elementary-school system has undertaken to provide more effective reports to parents regarding the school progress of their children.

34. ESSEX, DON L. "The Board of Education and Its Architect," *American School Board Journal*, XCII (March, 1936), 31-32

Considers the selection, terms of contract, and the status of the school architect in relation to the board of education in city school systems.

35. FUCHS, THEODORE. "Equipment for School Dramatics," *American School and University*, VIII, 267-76. New York: American School Publishing Corp., 1936.

Considers the physical facilities required for successful work in school dramatics.

36. LINN, H H. "Some Practical Suggestions for WPA Work in Public Schools," *American School Board Journal*, XCII (March, 1936), 27-29, 74.

Discusses types of desirable permanent plant improvements and repair jobs for WPA projects in city school systems

37. MARTIN, WALTER C. "School-Building Structure and Equipment for Efficient Use of Visual Aids and Radio," *American School and University*, VIII, 256-60. New York: American School Publishing Corp., 1936.

Discusses and illustrates classroom and building specifications essential to effective use of visual aids and radio.

38. NOFFSINGER, FOREST R. "A Century of Progress in Schoolroom Seating," *American School Board Journal*, XCIII (July, 1936), 41–42, 72.

    Historical treatment of the problems of school seating.

39. NORTON, JOHN K. "School Administration and Governmental Reform," *Teachers College Record*, XXXVII (May, 1936), 686–90.

    Suggests areas of co-operation between students of public administration and students of school administration but argues against the co-ordination of school and municipal administrative organization

40. OTTO, HENRY J. "Administration Responsibilities for Progress in Elementary Education," *Elementary School Journal*, XXXVII (September, 1936), 25–29

    The author believes that the lag between theory and practice in elementary education results from the lack of leadership on the part of administrative officers. Suggests that practically all needed improvements in elementary-school teaching could be secured by effective administrative service and without additional cost to the schools.

41. SCATES, DOUGLAS E. "A Check-List for Studying School Services," *American School Board Journal*, XCII (June, 1936), 17–19, 76.

    Contains an excellent analysis of school services which require systematic study and evaluation from year to year.

42. SHANNER, CHARLES REAVIS. "Regulations Pertaining to Health, Hygiene, and Safety in City School Systems," *Elementary School Journal*, XXXVI (December, 1935), 268–75.

    Report of an examination of rules and regulations of 130 city school systems.

43. SPAIN, CHARLES L. "Organizing a School System for Complete Community Service," *Nation's Schools*, XVI (November, 1935), 16–20.

    An interesting account of the extensive community program organized and maintained by the Detroit school system.

SUPERVISION[1]

44. BENNETT, J. M. "The Supervising Principal and Constructive Supervision," *Educational Administration and Supervision*, XXII (February, 1936), 88–104.

    Describes four fundamental steps in supervision by general supervisors.

45. HENDRICKS, F. H "Supervisory Procedures of the Elementary School Principal," *Illinois Teacher*, XXIV (April, 1936), 236–37, 250.

---

[1] See also Item 4 (Blume), Item 37 (Barr), and Item 41 (Higgins) in the list of selected references appearing in the January, 1937, number of the *School Review*.

Discusses the supervisory procedures that can be employed by elementary-school principals in the organization and administration of supervision.

46. HIMMELREICH, W. F. "Elements of Supervisory Techniques Feasible in a Small School System," *American School Board Journal*, XCI (November, 1935), 31–32.

Discusses five aspects of a supervisory program for use of superintendents of small school systems

47 MELBY, E. O. "Supervision," *Review of Educational Research*, VI (June, 1936), 324–36.

Reviews and evaluates the research carried on in public-school supervision between January 1, 1933, and January 1, 1936.

48. ROGERS, MURPHY P. *A State's Supervision of Its Elementary Schools.* Teachers College Contributions to Education, No. 679. New York: Teachers College, Columbia University, 1936. Pp. vi+118.

Considers the development of the present program of activities with respect to the supervision of elementary schools in Louisiana by the State Department of Education and outlines a program of supervision for the future

49. TAYLOR, JESSIE E. "A Supervisory Project in Adapting the Curriculum of the Primary Grades to the Needs of Children," *Education*, LVI (February, 1936), 328–33

Supervision as in-service training is carried on through the study of individual pupils and the curriculum as a means of reducing failure.

Educational Writings

REVIEWS AND BOOK NOTES

The research basis of curriculum improvement.—Curriculum development is a manifold undertaking and must be approached from many angles if balanced all-round child development is to result. Norton and Norton[1] approach the task from the research point of view. They give only passing consideration or omit altogether many basic curriculum problems upon which research throws little light. They set themselves a definite task, which is stated in the Preface as follows: "The publication is concerned with materials bearing on the determination of curriculum content and activities rather than with the organization and administration of programs of curriculum-building" (p. iv).

The book falls into two major divisions. The first three chapters and the last chapter deal with general aspects of curriculum development. Consideration is given to conditions which make improvement necessary, issues involved in curriculum construction, approaches to the selection of content, and trends in curriculum-building. These chapters represent an interesting summary for the person who is already oriented to the major problems of curriculum development. However, the necessarily sketchy way in which these fundamental matters are treated, the exclusion of many basic problems, and the absence of a dominating point of view toward the curriculum would tend to leave the uninitiated with little feeling of need for improvement or with little idea of how the desirable change might be accomplished. Hence, the book appears unsuited for general orientation to curriculum principles and practices.

The second division of the book embodies chapters iv–xvi, inclusive. It is in these chapters that the authors carry out the purpose set forth in the Preface. The problems selected for consideration are those relating to conventional subject fields. A chapter is devoted to each of the following subjects: health and physical education; social studies, reading; handwriting; spelling; language, grammar, and composition; arithmetic; science, music; art; industrial arts; and home economics. While there is no uniform plan of treatment and each subject has certain topics peculiar to it, in most cases there are presented a brief historical résumé of the subject, studies showing pertinent general conditions and facts, the point of view which dominates the subject, studies relating to the time of beginning instruction in the subject, studies relating to the objectives of the subject, studies relating to time allotment, and studies relating to the selection of activities and content.

---

[1] John K. Norton and Margaret Alltucker Norton, *Foundations of Curriculum Building.* Boston: Ginn & Co., 1936. Pp. x+600. $3.00.

These chapters represent a highly worth-while synthesis and evaluation of research which relates to curriculum problems in the subject fields. The authors point out—and rightly so—that this analysis will be of value in all types of curriculum programs. Certainly all production committees and all workers in particular fields will find in the selection and synthesis a great deal of assistance. The book should also be found valuable in general courses on the curriculum if used to supplement sources which emphasize general principles and practices.

There is evidence in this publication of the customary painstaking work of the authors. The studies included are carefully selected, and copious citations are made. For example, chapter v has more than eighty citations and chapter vi more than one hundred. Extended lists of references are given at the close of each chapter. Even so, there is notably little material on many problems—an indication of the inadequacy of research in various areas.

On one point which is suggested directly by the title there would be widespread disagreement. The implication is that research studies in the subject fields represent the foundations of curriculum-making. To many curriculum workers such studies represent only materials that may be used in the construction process after the foundation has been laid in basic principles and general procedures.

The quality of the book merits a better mechanical form than was given it. The binding is discouraging in color; the Table of Contents and the list of tables are poorly spaced; and the Preface, Foreword, and chapter headings appear crowded. While these features affect the first impression which the book makes, fortunately they will not deter readers interested in curriculum development from careful study of the publication. Because it is an intensive piece of work in an area in which little has been done, the book represents a worthy contribution to the literature on curriculum development.

HOLLIS L. CASWELL

GEORGE PEABODY COLLEGE FOR TEACHERS

Does character training get results?—Scores of character tests have been built and more or less standardized, and a great many "cross-sectional" studies based on these tests have, by implication, raised serious questions regarding conventional procedures. Yet in his report of his own well-planned experiment[1] Jones mentions only seven investigations that are sharply focused on the values of specific, controlled methods of producing character.

Jones's attack on the problem was quite like that of many other curriculum studies. Two classes were used as control groups. Six other classes were taught honesty and co-operation by three distinct methods, two being subjected to each procedure. All groups were tested both before and after the period of instruction.

---

[1] Vernon Jones, *Character and Citizenship Training in the Public School: An Experimental Study of Three Specific Methods*. Chicago: University of Chicago Press, 1936. Pp. xii+404. $3.00.

Roughly, the teaching methods used correspond to three prevailing ideas of how character can and should be taught. The first was the method of "first-hand experiencing" with no instruction except that which was related to the specific situations faced. The second consisted exclusively in discussion. The third combined the other two methods, an effort being made to bring practice to consciousness and relate it to general principles.

A little over an hour and a half a week for nine and a half months was used in the training. Besides the initial and the final testing, a followup test was given in the following year. In all, from fourteen and a half to sixteen hours were devoted to the testing procedure in each class. All the standardized tests employed are adequately illustrated, and their statistical values are noted

The rather formidable barrage of techniques elicited a vast amount of data in quantitative form, which were then treated by appropriate statistical procedures to answer certain questions. Can character be improved? What is the relative effect of the three methods? Is behavior consistent? What are the correlates of behavior and improvement? What effect on behavior has emotion induced by motion pictures? How long is improvement maintained?

On the second question the evidence is clear. The combination method of experience and discussion, although not consistently effective, was decidedly the best of the three. In fact, neither experience alone nor discussion alone was consistently better than doing nothing at all. In this respect Jones's study confirms the findings of several others, and it is well to have this additional and convincing proof both of the meagerness of the results of even the most carefully planned efforts to change conduct and of the almost wholly negligible results of mere talk on the one hand and mere action on the other.

One might question whether, in the light of recent discussions of the nature of character, any improvements in specific forms of conduct are to be regarded as equivalent to improvements in character. The weakness of the study at this point is somewhat offset by the inclusion of evidence as to growing consistency of performance—a fact frequently neglected in researches of this type. In this respect the discussion method proved quite as effective as the experience-discussion method, this finding showing how significant a rôle discussion plays in the organization of behavior, if not in its improvement.

The study is noteworthy for its meticulous care for details both in the instruction and in the testing, for its wise use of statistical procedures, for the length of the period of training, and for the author's close adherence to the facts in his interpretations. It would have been still more valuable if the author had made explicit his presuppositions concerning the meaning of character and the applicability of both his training devices and his tests to this conception.

HUGH HARTSHORNE

YALE UNIVERSITY

The teacher and classroom behavior problems.—It is no longer pedagogical heresy to admit that a teacher teaches children and not subject matter. Whatever his obligation to the personality of the child, the teacher cannot ignore that personality in action. However ardently he may persuade the child to learn, the behavior of the child may get in the way. There are content, method, and the child, but the most important of these is the child. Once this emphasis is admitted, the manner of control of the child in the classroom becomes a major problem in education. Data on this problem have been presented in a monograph[1] from Teachers College at Columbia University, under the sponsorship of Professor Arthur I. Gates of that institution.

The materials of the investigation were secured from 83 elementary classrooms in southern New Jersey containing 2,762 children from Grade I through Grade VI. These classrooms were in rural, village, and suburban schools and in various types of city school districts. The data used in the study were obtained from three sources:

> 1 Diary records obtained by student teachers through observation in the classrooms and through conferences with experienced teachers regarding these observations.
>
> 2 Diary records obtained by experienced teachers through observation of students' teaching and through conferences with students regarding the observations.
>
> 3. Questionnaires submitted to experts in education and to a sampling of experienced teachers [p. 5].

The results of the research are grouped in three chapters. Chapter iii lists the classroom behavior problems which the teachers considered objectionable to a social group and sufficiently important to report. Chapter iv tabulates the treatments used by the teachers in solving the classroom behavior problems of their pupils, and chapter v presents an evaluation of the various types of treatments used by teachers. This evaluation was a product of the judgments of both the co-operating teachers and a group of experts in the study of child development

In the judgment of the reviewer, some of the data from the tables of chapters iii and iv are so significant that they deserve special citation. For example, of the various types of classroom behavior problems recorded by the teachers, 40 per cent related to violations of classroom order; 16 per cent related to difficulties with authorities or rules; 22 per cent concerned problems of application to school work; 14 per cent involved aggressive and antagonistic personality traits; 8 per cent dealt with immorality; and only 0.2 per cent related to problems involving withdrawing and recessive personality traits. Of the various types of treatment employed by the teachers to meet the foregoing classroom behavior problems, 0 8 per cent employed physical force; 46 per cent used censure; 9 per cent used overtime or extra work; 19 per cent involved deprivation, 1 per cent consisted in ignoring the child, 10 per cent were based on verbal appeal; 4 per cent used reward through social approval; 1 per cent employed reward through privilege; while, most astounding of all, *only 9 per cent attempted explanation or assistance in meeting the situation.*

---

[1] Nellie M Campbell, *The Elementary School Teacher's Treatment of Classroom Behavior Problems* Teachers College Contributions to Education, No. 668 New York· Teachers College, Columbia University, 1935. Pp. vi+72. $1.50.

There were some other interesting outcomes of the study. Teachers who were rated by their supervisors as highly successful in the control of classroom behavior made much greater use of rewards and direct assistance to the child than did other teachers. On the other hand, teachers who were rated as being less successful in classroom control made much more frequent use of punishment than other teachers. There was also evidence that a significant gap existed between what the teachers and the experts announced as desirable in theory and what the teachers employed in actual practice. This gap between theory and practice, however, was apparently not recognized by the teachers. They were inclined to defend as successful that type of practice which they themselves employed while at the same time they would condemn the same type of procedure when it was employed by someone else or when it was presented as a statement of abstract theory.

This investigation is further confirmation of the growing body of evidence that teachers are often sadly deficient in their understanding and management of the personalities of the children under their care. It appears that, so far as actual practice is concerned, the viewpoint that the child should be the object of the educational process is nothing more than pious claptrap. In the opinion of the reviewer, the major strategy of any program of guidance, mental hygiene, or character education must center on the vital relationship existing between the pupil and the teacher. If, therefore, only 9 per cent of the treatment employed by teachers in handling classroom behavior problems can be construed as being intelligent guidance, and if teachers persist in overemphasizing the problems of the disorderly and aggressive child and virtually ignoring the problem of the withdrawing and recessive child, they have obviously little grasp of the meaning and opportunity of their task.

This investigation is therefore a sad reminder of teachers' shortcomings. The following statement made by the author of the monograph in concluding her report is a melancholy indictment.

> When treating undesirable classroom behavior of children, the teachers apply direct measures such as punishment or reward. Seldom does the need for using indirect methods, such as changing the organization of the classroom situation to prevent the recurrence of the problem, seem to be recognized. Rarely is there evidence of the study of an individual to determine the cause of the maladjustment through data from health examinations, psychological examinations, home conditions, or from information concerning social and emotional adjustment. While the teachers may have been seeking the adequate social adjustment of the child there is little evidence in the treatments themselves or in the comments of the teachers concerning the treatments to indicate that they sought to do anything other than remove the disorder [p. 60].

HOWARD Y. MCCLUSKY

UNIVERSITY OF MICHIGAN

Conflicts in the nursery school.—Again it is shown that the social world of the nursery school mirrors the complex human relationships of society. Conflicts, both individual and social, and techniques for the resolution of these conflicts are major theoretical and practical concerns. In an investigation by Jersild and Markey,[1] "a conflict is defined as any instance in which one child attacks another's person or by word or deed interferes with the person, activities, or possessions of another, or threatens by word or gesture to do so, or endeavors by force or verbal demands to possess another's belongings, or to direct another's activities in opposition to the apparent desires of the child against whom the aggression is made" (p. 153).

Records of the conflicts of nursery-school children with one another during their free play were obtained in observations of fifty-four children of two to four years of age. In a supplementary study twenty-four of the same children were observed after an interval of about a year in the nursery situation, and an additional twelve children were observed in the kindergarten. The record was taken in the form of a running diary account, with some regard for timing and sampling. The data secured are acceptable for showing individual differences among children and relationships within a given situation. It is not clear that the method controlled constant errors attributable to situational differences.

The average number of conflicts per child during ten fifteen-minute periods of observation was about thirty-one, or approximately one conflict every five minutes. The median duration of a conflict was in the vicinity of thirty seconds. Extremely wide individual variations existed in the extent of participation in conflicts, in acts of aggression, and in personal attacks. The findings showed a decline with age in the frequency of screaming, weeping, and crying for help, while there was an increase with age in the use of language during conflicts. There is a suggestion that the sex which is in the majority in the nursery situation will exhibit the larger number of conflicts, but this finding may be accidental. Height, weight, and race showed inconsistent trends. There appeared to be a slight negative correlation between frequency of conflicts and intelligence quotient. A more consistent finding was that children with high intelligence quotients were more likely to use language during conflict. Day-nursery children exceeded nursery-school children in overt and verbal acts of attack and defense, as well as in the frequency of weeping and crying for help. It is possible that the data were influenced to some extent by socio-economic factors and by the relation of space and equipment to the number of children present.

One of the most important factors in accounting for group differences in frequency of combat was the influence of the teacher. Lower frequencies were found when there was a large proportion of teachers to children. Some special analysis was made of the occasions in which the teacher interrupted combats before the children had ceased their struggle. In 72 per cent of the instances the teacher definitely decided in favor of a child. Decisions were usually against the child who was the aggressor and favorable to the victim. Teachers also tended to decide against the child who won a large proportion of his fights when left to himself and in favor of the child who lost a high proportion. Children who came into conflict with other children also tended to have conflicts with the teacher. All types of combative behavior were positively intercorrelated. The child who usually takes the aggressive when he engages in a combat also tends to fight, hit, snatch, and win more often than does the child who seldom makes the first aggressive move. There was a correlation of .53 between data secured by the observational method and teachers' ratings. Approximately two-thirds of the conflicts were precipitated by overt or verbal aggression against another's material possessions, space, or play activities, and approximately one-third were precipitated by aggression against the person of another. The conflicts were often the by-products of general activity and play.

---

[1] Arthur T. Jersild and Frances V Markey, *Conflicts between Preschool Children* Child Development Monographs, No. 21. New York· Teachers College, Columbia University, 1935 Pp. x+182.

In the followup study it was found that children who were high in combativeness in one year were likely to remain high in another year. The frequency of combat increased in absolute amount, but the interpretation is complicated by factors such as space and amount of teacher interference. There is at least a suggestion in the study that conflicts increase in the cases of children receiving the most teacher interference and decrease in those receiving the least. The question of learning control through conflict deserves special study.

There is some suggestion that among children of these early ages there is more readiness to take than to give, to hit another child than to sympathize with him. Most persons are willing to agree that the socialization of these activities and the learning of constructive interactive and coactive behavior are important objectives of the educational process. It is reassuring to note that the frequency of social contact without combat was far higher than the frequency of contacts that involved a fight and that the conflicts rarely had prolonged aftereffects. Teachers of children of every age may profitably read the chapter on the summary and conclusions of this investigation.

WILLARD C OLSON

UNIVERSITY OF MICHIGAN

A modern curriculum for the intermediate grades.—Conceptions of the rôle of state departments with respect to courses of study have recently undergone considerable modification. From the issuance of detailed courses to be followed somewhat inflexibly by local school systems, practice has turned to the provision of a broad framework designed to outline the scope of the curriculum and to insure continuity and integration in the development of the child. "Leads" are suggested upon which materials suited to local situations may be based, and such detailed units of learning as are furnished are designed mainly for illustrative purposes. Modern state curriculum bodies also conduct continuing studies of educational aims, innovating practices, and teaching aids and disseminate the findings among workers in the field. A veritable culmination of services of the types enumerated is provided by the second manual[1] of child development prepared by the California State Curriculum Commission.

The first four chapters of the book are general in nature. They carry the following titles: "Point of View," "The Organization of the Intermediate Grades," "The Teacher," and "Textbooks and Other Instructional Materials." Separate chapters are devoted to methods and materials of social studies, science, training in reading skills, reading in content fields, recreatory reading, oral and written expression, arithmetic, music, art, and creative play. Six comprehensive units of work indicating the contributions of subject fields to centers of interest and two appendixes containing bibliographies for curriculum units and recreatory reading complete the contents of the volume.

The style of the book should have a particular appeal for the classroom teacher. The language is nontechnical and concise, and in many instances descriptions of practices are reinforced by remarkably lifelike photographs of school situations. The editorial committee was successful to a marked degree in gleaning, from a voluminous and ever-increasing flow of professional literature, principles essential to modern classroom practice and putting them into a simple and usable form. References to teaching aids and materials tell where to obtain them or how they may be constructed. The professional bibliographies are concise and refer to significant studies and discussions.

Among the purposes, six in number, designated for the elementary school are the cultivation of habits of analytical thinking and the development of appreciation of beauty. Illustrations, in accordance with educational principles, are given of how to conduct conferences with pupils during the class period, how to utilize the home as an aid in the educative process, and how to eliminate a great deal of the memorization of subject matter in order that materials for developing social consciousness in the child may be provided. Seven statements of what comprises an effective program for the intermediate grades, with sample class schedules to illustrate their practice, cannot fail to be of assistance to principal and teacher.

The chief merit of this volume lies in its "usability." The difficulties and the professional gropings of the average teacher have been sensed to an extraordinary degree, and a book has been made available which will provide teachers generally with hope as well as assistance The presentation of educational aims brings out clearly that the principles basic to modern classroom work are not large in number and are applicable at all grade levels. To some, the element of children's interests as a basis for learning activities may appear to be overemphasized, but there is adequate treatment of such factors as the development of skills and techniques, the uses of diagnosis and evaluation, and the contributions of scientific studies. The members of the commission have produced a manual of marked assistance, not only to intermediate-grade teachers of their own state, but to administrators and teachers of all grade levels throughout the country.

---

[1] *Teachers' Guide to Child Development in the Intermediate Grades*. Prepared under the direction of the California State Curriculum Commission. Sacramento, California State Department of Education, 1936. Pp xxviii+632

PAUL R. PIERCE

WELLS HIGH SCHOOL, CHICAGO, ILLINOIS

To the stutterer.—Because stutterers differ greatly in their ability to gain insight into their difficulty, in the severity of their disorder, in age, in intelligence, and in associated complicating factors, there is some doubt with regard to the value of telling them how to handle their own cases. In spite of this doubt, Dr. and Mrs. Blanton address a book to the stutterer.[1] They tell him that his speech difficulty is not inherited but rather that it is learned. They give him a brief presentation of the various levels of the nervous system and of the mind. I doubt whether the average stutterer, with no more knowledge of psychology and neurology than he usually possesses, will understand this discussion. The authors then include chapters on "The Growth of the Conscience," "Anxiety," "Emotional Patterns," and "The Family and the Social Pattern." It is not made clear how this material should be used by the stutterer in handling his own case. Chapters on "A Description of Stuttering," "Theories about Stuttering," the cause of stuttering, and the treatment of stuttering are short and, in my judgment, inadequate. I seriously doubt whether the average stutterer will be able to apply the material in these chapters with success.

The stutterer ought to know why certain situations cause more difficulty than others, why certain speech sounds are more closely related to spasms than other sounds, how he can overcome his fears of speaking, and how he can organize his life to present a unified front to his public. These practical and pertinent issues are not touched. The book is concluded with chapters on what parents, the public, and the stutterer can do. These chapters are good but too brief and general. Further, they are platitudinous.

The book has value from two points of view: (1) It is the first attempt to approach the problem of stuttering from the standpoint of medical psychology. (2) It raises the important issue of whether the stutterer can be helped by directing a treatise to the stutterer himself. Although the book is not directed to physicians and teachers, it suggests a certain point of view in speech pathology for these two classes of workers.

LEE EDWARD TRAVIS

UNIVERSITY OF IOWA

Elementary statistics applied to education.—The present-day emphasis on measurement and the quantitative treatment of results has made it not only extremely useful but almost necessary for students of education and psychology to have a knowledge of statistical method. For students who have studied mathematics extensively, the theory of statistics is comparatively easy, but for those without such training the statistical methods present many difficulties. It is for the latter group of students that Professor Cooke has written a textbook on statistics.[1] The book is written in a simple form and is readily understandable to those with limited mathematical training. The author gives much space to the discussion and the interpretation of various statistical concepts and places little emphasis on the mathematical derivation of formulas.

---

[1] Smiley Blanton and Margaret Gray Blanton, *For Stutterers*. New York: D. Appleton-Century Co., Inc., 1936. Pp. xii+192. $2.00.

The book treats the more widely used statistical measures. The elementary measures are discussed in great detail, whereas in the case of many of the more advanced only the formulas are given. In most instances, however, the student is cautioned that the advanced measures may be needed, and references are cited for detailed study. For example, a lengthy discussion is granted to the prediction of a single unknown score on the basis of one known score, whereas only the essential equations are given for a five-variable regression problem.

A just criticism can be made because of the lack of precise treatment of several statistical concepts. For example, the author explains correlation as "the tendency for one factor to vary in some fixed manner in relation to variations in another factor" (p. 114). For most purposes this statement would be considered a valid interpretation, but the discussion is continued with the further statement that "correlation is a means of expressing the similarity or likeness of two factors" (p. 114). The latter interpretation holds for but few cases, if at all. In another instance the concept of non-linear correlation is introduced with the two formulas for η_{xy} and η_{yx}, but no clear differentiation is made between the two measures. On the other hand, the discussion of reliability, skewness, regression, probable error, and standard deviation is exceptionally clear.

The author is very explicit in signifying what each symbol in the formulas stands for and in detailing the various steps to be followed in the calculations. Complete model problems are worked out in the text. Numerous problems and exercises with answers are placed at the end of each chapter to give the student practice. In most cases the data used for the exercises are not artificial but are drawn from tables presented in the Appendix. In addition to the exercises, from twenty-two to thirty-six true-false statements relating to the statistical theory and interpretation of the various concepts are given at the close of each chapter.

The Appendix includes selected references in twenty-six other textbooks arranged in tabular form and indicating the pages in each reference on which various topics are treated. Also included in the Appendix are various calculating tables, squares and square roots, etc. A detailed index makes possible quick reference to various formulas.

---

[1] Dennis H. Cooke, *Minimum Essentials of Statistics*. As Applied to Education and Psychology. New York: Macmillan Co., 1936. Pp. xviii+272. $2.75.

The book as a whole adequately fulfils the author's purpose:

> This volume is intended as a textbook in statistics for students in education and psychology . . . . All the essential and most widely used statistical measures and processes have been treated. . . . . The minimum amount of space has been devoted to process, the major emphasis being placed on the interpretation of statistical measures.
>
> An attempt has been made to present the material in the simplest form possible. . . . A knowledge of high-school algebra should be all the mathematics necessary to comprehend the measures treated. . . . . A thorough knowledge of the contents of this volume should enable the graduate student in education and psychology to do the statistical phases of practically all the research problems which he encounters [pp. vii–viii].

W. M. SHANNER

CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY AND PRACTICE

BEALE, HOWARD K. *Are American Teachers Free?* An Analysis of Restraints upon the Freedom of Teaching in American Schools. Report of the Commission on the Social Studies of the American Historical Association, Part XII. New York: Charles Scribner's Sons, 1936. Pp. xxiv+856. $3.50.

Business Education for Everybody. Proceedings of the University of Chicago Conference on Business Education, 1936. Chicago: University of Chicago Press, 1936. Pp. viii+126. $1.00.

ELLIOTT, EDWARD C., and CHAMBERS, M. M. *The Colleges and the Courts:* Judicial Decisions regarding Institutions of Higher Education in the United States. New York: Carnegie Foundation for the Advancement of Teaching, 1936. Pp. x+564.

ENGELHARDT, N. L., and ENGELHARDT, FRED. *Survey Manual for the Business Administration in Public School Systems.* New York: Teachers College, Columbia University, 1936. Pp. xvi+156. $1.90.

HARDY, MARTHA CRUMPTON, and HOEFER, CAROLYN H. *Healthy Growth:* A Study of the Influence of Health Education on Growth and Development of School Children. Chicago: University of Chicago Press, 1936. Pp. xii+360. $3.50.

LEÃO, A. CARNEIRO. *Tendências e diretrizes da escola secundaria:* Aspectos de sociologia educacional. Rio de Janeiro: Rodrigues & C., 1936. Pp. 294.

LEVINE, ALBERT J. *Fundamentals of Psychologic Guidance:* Mental Hygiene in the Service of School and Society. Brooklyn, New York: Educational Monograph Press (882 Linden Boulevard), 1936. Pp. 96. $1.00.

MARSHALL, LEON C., and GOETZ, RACHEL MARSHALL. *Curriculum-making in the Social Studies:* A Social Process Approach Report of the Commission on the Social Studies of the American Historical Association, Part XIII. New York: Charles Scribner's Sons, 1936. Pp. xviii+252. $1.75.

MONROE, WALTER S., and ENGELHART, MAX D. *The Scientific Study of Educational Problems.* New York: Macmillan Co., 1936. Pp. xvi+504. $3.00.

NUTTALL, L. JOHN. *Teaching Purposes and Their Achievement.* New York: Charles Scribner's Sons, 1936. Pp. x+290. $1.80.

WRIGHTSTONE, J. WAYNE. *Appraisal of Experimental High School Practices.* New York: Teachers College, Columbia University, 1936. Pp. xiv+194. $2.25

BOOKS PRIMARILY FOR ELEMENTARY-SCHOOL TEACHERS AND PUPILS

CRAMPTON, C. WARD. *The Boy's Book of Strength.* New York: McGraw-Hill Book Co., Inc., 1936 Pp. xviii+258 $2.00.

FOWLKES, JOHN GUY, JACKSON, LORA Z., and JACKSON, ARNOLD S. *Healthy Bodies.* The Healthy Life Series. Philadelphia: John C. Winston Co., 1936. Pp. viii+216. $0.64.

GRAHAM, FRANK D., and SEAVER, CHARLES H. *Money:* What It Is and What It Does. New York: Newson & Co., 1936 Pp. 158. $0.80

Living through Biography: *The High Trail*, pp. xii+340; *Actions Speak*, pp. x+340; *Real Persons*, pp. xii+340. Selected and edited by Edwin Diller Starbuck and Staff, Institute of Character Research, University of Southern California. Yonkers-on-Hudson, New York: World Book Co., 1936. $0 96 each

MOORE, CLYDE B. *Our American Citizenship.* New York: Charles Scribner's Sons, 1936. Pp. xvi+496. $1.40.

POWERS, SAMUEL RALPH; NEUNER, ELSIE FLINT; and BRUNER, HERBERT BASCOM *Directed Activities:* III A Workbook To Guide Pupils in Their Study of Man's Control of His Environment. Boston: Ginn & Co., 1936. Pp. iv+150+tests for Units I–VIII. $0 52.

SUMNER, CLARENCE WESLEY. *The Birthright of Babyhood.* New York. Thomas Nelson & Sons, 1936. Pp. x+86. $1.00.

PUBLICATIONS OF THE UNITED STATES OFFICE OF EDUCATION AND OTHER MATERIAL IN PAMPHLET FORM

Annual Report of the General Education Board, 1935–1936. New York: General Education Board, 1936 Pp. xiv+112.

BROWN, EDWIN J., and BYALL, RUSSELL D *A "Consumer's Research" in School Supplies.* Studies in Education Number (Eleventh of the Series). Kansas State Teachers College of Emporia Bulletin of Information, Vol. XVI, No. 9. Emporia, Kansas: Kansas State Teachers College of Emporia, 1936. Pp. 44

ENGELHARDT, N. L. *Elementary School Building Score Card and Survey Manual.* New York: Teachers College, Columbia University, 1936. Pp. 44. $0 50

Enriched Community Living: An Approach through Art and Music in Adult Education. Studies by the Division of Adult Education, State Department of Public Instruction in Delaware Directed by Marguerite Hill Burnett and

L. Thomas Hopkins. Wilmington, Delaware: Division of Adult Education, Delaware State Department of Public Instruction, 1936. Pp. 236.

GABLE, SISTER FELICITA. *The Effect of Two Contrasting Forms of Testing upon Learning.* Johns Hopkins University Studies in Education, No. 25. Baltimore: Johns Hopkins Press, 1936. Pp. x+34. $1.00.

INSTITUTE OF INTERNATIONAL EDUCATION. Seventeenth Series: Bulletin No. 4, *The American University Union in Europe*, pp. 46; Bulletin No. 5, *Seventeenth Annual Report of the Director*, pp. 48, $0.10. New York: Institute of International Education, Inc. (2 West Forty-fifth Street), 1936.

Recent issues of the Office of Education:

Bulletin No. 9, 1936—*Testing Practices of High-School Teachers* by J. Murray Lee and David Segel. Pp. vi+42.

RUCH, G. M., KNIGHT, F. B., OLANDER, E. A., and RUSSELL, G. E. *Schemata for the Analysis of Drill in Fractions.* Educational Psychology Series, No. 3. University of Iowa Studies in Education, Vol. X, No. 2. Iowa City, Iowa: University of Iowa, 1936. Pp. 58.

Safety in Pupil Transportation. Research Bulletin of the National Education Association, Vol. XIV, No. 5. Washington: Research Division of the National Education Association, 1936. Pp. 199–238+iv. $0.52.

SULLIVAN, ELIZABETH T., CLARK, WILLIS W., and TIEGS, ERNEST W. California Test of Mental Maturity: Primary Battery, Grades 1–3; Elementary Battery, Grades 4–8. Los Angeles, California: Southern California School Book Depository, Ltd. (3636 Beverly Boulevard), 1936.

WOOTTEN, KATHLEEN WILKINSON. *A Health Education Workbook:* For Teachers, Parents, Nurses, and Social Workers. New York: A. S. Barnes & Co., Inc., 1936. Pp. xx+274. $1.50.

MISCELLANEOUS PUBLICATIONS

BREEN, MARY J. *Partners in Play:* Recreation for Young Men and Women Together. Prepared for the National Recreation Association and National Board, Young Women's Christian Associations. New York: A. S. Barnes & Co., Inc., 1936 (revised). Pp. x+186. $1.00.

THE ELEMENTARY SCHOOL JOURNAL

VOLUME XXXVII FEBRUARY 1937 NUMBER 6

Educational News and Editorial Comment

AN ANALYSIS OF FREEDOM OF TEACHING IN AMERICAN SCHOOLS

Much has been said and written about academic freedom, but with primary reference to freedom of research and teaching at the university or college level. One of the recent volumes of the Report of the Commission on the Social Studies of the American Historical Association, however, constitutes a detailed and searching analysis of the restraints on the freedom of teaching in American schools at the elementary and the secondary levels. The book is entitled *Are American Teachers Free?* It was written by Howard K. Beale, visiting professor of history at the University of North Carolina. On the basis of evidence gathered from a great variety of sources, such as newspaper files, clipping collections, correspondence, and personal interviews, Professor Beale paints a picture of restraint and interference which will no doubt shock and amaze a great many people, not a few of whom will be teachers themselves. The issues, past and present, about which conflict has centered, are described as follows.

> A never-ending conflict of freedom and repression has been the lot of American teachers from the beginnings of American education. In Colonial days repression centered around religion and the maintenance of the social and eco-

nomic *status quo*. Then at the time of the Revolution politics took its place beside religion as a subject that mattered enough to men that they would try to enforce orthodoxy. Then, under the influence of the American and French revolutions, came an era of unusual freedom. This was followed by a time when slavery was the great controversial issue that no teacher dared discuss. After the Civil War, issues of that war refought in the schoolroom, then the new ideas of science, next certain reform movements like temperance, and finally the new social and economic problems arising out of a growing industrialism took their places in turn as controversies on which men felt keenly enough that the teacher who dissented from community opinion was in danger. Throughout our history religion and conduct have been centers of difficulty.

The characteristic feature of the period following the World War has been the complexity of issues involving the problem of freedom. The old religious issue has remained important. Even before the war the new views of science and of modernist religion had begun gradually to seep down into the schools to shock the community and cause trouble for the teacher. Growing industrialism was creating a whole host of new social and economic problems. History, civics, economics, sociology, controversial subjects all, had attained a new importance in school curriculums.

Then came the World War. It intensified the problems of industrialism and speeded up the process of industrialization. It smashed old conceptions of morality and time-honored social controls. It left in its wake disillusionment that led many young teachers to a determined effort to improve conditions in the world, to a revolt against things as they had been, or to an escape through cynicism. In most American communities any one of these attitudes is likely to cause trouble. But the war did more. It bred hatred, prejudice, passion. It accustomed men to settle disputes by force instead of by reason. The war and the rise of communism in Russia left behind them a state of panic about "radicalism" that tended to class any criticism of things as they are and any desire to improve the world as menaces. The war stimulated a particularly blatant brand of "patriotism" and gave new impetus to the activities of "patriotic" societies seeking to coerce others into acceptance of their conception of loyalty to country. War profits gave new power to business. War-propaganda methods pointed the way toward using the schools to create a public opinion favorable to business control of the country. Apparently permanent and general prosperity made the man peculiarly unpopular who criticized the *status quo* and sounded warnings of disaster.

Out of these conditions grew at once, then, the ingredients of a great conflict over freedom in teaching: (1) a complexity of controversial subjects on which men had strong opinions, vital economic interests, and powerful emotions; (2) increasing numbers of teachers dissatisfied with the *status quo* and with the past ineffectiveness of the schools, and therefore now determined to make the school a social force and to turn out critical-minded students aware of social problems; (3) prosperous and powerful businessmen newly aware of the potentialities of the schools as agents of Big Business and determined to control them for business purposes; (4) a public somewhat disillusioned but prosperous and eager not to be disturbed in its enjoyment of prosperity by teachers who made its children ask embarrassing questions; and, finally, (5) a public emotionalism highly developed during wartime. Here then was a stage set for educational conflict.

In discussing how much freedom is possible or desirable, Professor Beale makes the following significant statement.

> Much is written about the dangers of freedom and its abuses. Little is said about the dangers and abuses of restrictions upon freedom Yet if the various liberal purposes of education described in this book and the beliefs of men who advocate freedom are valid, then society needs seriously to ponder those dangers of *lack* of freedom. There is no need here to recapitulate. Yet one fundamental danger to society must be reiterated. Children form their basic standards of values and attitudes toward life long before they reach college. The ideas they hold are not so important as their mental attitudes. If the schools have made them open-minded and capable of thought, they will change their ideas—perhaps many times But habits of thought and basic values are changed after adolescence only by superhuman efforts. It is the effect of freedom or restriction of teachers upon these basic values and mental habits of society that is really important. The world today desperately needs men and women of courage and integrity. Can teachers who are cringing, obedient "hired men," cowards, and hypocrites create citizens of courage and integrity? As the author completes this study, he is appalled by the extent to which American teachers are dominated by cowardice and hypocrisy There are admirable exceptions. Yet almost universally teachers teach not what they would like, but only so much of it as they dare. Their intelligence and convictions are one thing; what they say is another. Any teacher who sat down to a day of sober self-analysis would be amazed to realize how much he is controlled not by what is true, but by what he dares say. "Teachers dodge or pass over any controversial questions which might by any chance lead them into difficulties," writes one teacher. "When one learns that the public-school teacher must not tread upon the toes of the public belief, and how many and how protuberant these toes are, he becomes quite owlish." Do we want "owlishness" to become one of the chief mental stereotypes of American citizens? If teachers are forced to cultivate it, they will inevitably train children to it Teachers talk in terms of "discretion," "tact," "diplomacy," "common sense." As has been pointed out, the way in which a teacher does or says things is of great importance. In their better sense, all of these qualities are virtues teachers ought to cultivate; in their worse sense, they are evils apt to destroy civilization itself, for in the teacher's practice they are usually synonyms for simple, unadulterated cowardice. The author finds himself constantly dodging the use of any of these terms, because acquaintance with the schools has given them all an ignoble connotation.

Furthermore, lack of freedom leads to a more disastrous quality than cowardice, namely, hypocrisy. Again the author was appalled by its prevalence. From one end of this country to another children are being trained under teachers who, if one is realistic, must be branded hypocrites. They solemnly teach the evils of alcohol; they drink discreetly in private. They know of crying evils in the community, and their pupils know that they know of them. Yet in class they teach beautiful theories in the abstract and then praise the local men responsible for flagrant violations of those theories; outside of class they fawn on these same bad citizens because they are powerful or socially important. They teach ideal forms of government and teach children to believe that that is the way democracy really works. Later these children make contact with the local machine or corruption in high places and then realize that their teacher knew about all of it, even when he was describing to them empty forms that would blind them to any evils in the system. Teachers smoke—but only in private. They express one set of views in the classroom and in public places; they hold a different faith among intimate friends. Usually teachers rationalize all of this double-dealing out of existence. They are forced to it; so they find theories to support it. The greatest hypocrisy of all is their educational theory. They solemnly talk of all sorts of fine purposes of education. Yet they teach on entirely different principles when they get into the classroom. The present author has talked to superintendents who have made to him solemn statements which, while the superintendent was making them, he knew from irrefutable evidence were absolutely untrue. America needs, not better ideals of education, but educators who will not pretend to follow them unless they really do. This pretense extends down through the whole school system. Teachers, over and over again, have apologized for something they were doing or teaching by explaining that they knew better, but of course it would not be discreet to teach it. They did not see that this admission damned them more completely than ignorance. "Well, of course it's true, but why did the damned fool want to say so?" is a blunt expression of an attitude that permeates the whole teaching profession. In moments of despair one feels like shouting, "Hypocrites, hypocrites." The worst of it is the teachers most guilty of it would be insulted and sincerely amazed at the epithet.

Teachers are no worse in these respects than other citizens. Unfortunately, however, their attitude gives to a new generation the same mental habits. A primary child could not understand many of the prohibited social and economic doctrines if the teacher made strenuous effort to convert him to them. But he quickly learns to imitate the teacher in being "discreet," "tactful," "diplomatic" instead of courageous. He speedily discovers that, whatever one really does and believes, he publicly pretends to do and believe the thing that will best serve him at the moment; and he comes to believe that a discreet man gives lip service instead of devotion, to all sorts of good causes, if they happen to be popular, and then carefully hides his true devotion to other causes because they are

> unpopular. After a study of the schools one does not wonder that Americans trained in them are unrealistic in dealing with the problems of life. We need teachers who will be models, for children learn more by imitation than by instruction; but of what shall they be models? Shall they give lip service to all the conventionalities of life or shall they be models of courage and integrity? . . . .
>
> After careful weighing of the factors pro and con, with full realization of all the difficulties involved, the author has ceased to ask whether freedom is possible, how much of it can be allowed to teachers, whether it will be abused. Of course, it will be abused. The really important question is: Dare society face the consequences of *not* permitting the teachers of the next generation complete freedom?

Not everyone will agree with Professor Beale's conclusions. Some who read the foregoing paragraphs will be shocked; not a few will be indignant. It is to be hoped, however, that these extracts may stimulate all to read this exceedingly challenging volume.

THE PROBLEM OF CLASS SIZE IN THE ELEMENTARY GRADES

Professor Arthur I. Gates, nationally known authority in the field of reading instruction, has, according to a report in the *New York Sun*, come to the conclusion that large classes are the basic cause of failure in reading and, for that matter, in other subjects as well. This conclusion was reached as a result of extensive research in the reading difficulties of children. Professor Gates is quoted by the *Sun* as follows:

> The general run of studies has tended to show that there are little practical differences in results from a class of fifteen or twenty pupils and a class of forty to fifty pupils. I believe that our studies show that this merely means that, if the teacher adopts a mass method and teaches a class instead of individuals, it matters relatively little how many individuals are in the group.
>
> But if she attempts to do what our investigations show must be done successfully to teach all the pupils, namely, to discover their characteristics and adjust instruction to them, the size of the class makes all the difference in the world.
>
> We believe we have satisfactory evidence that a primary cause of reading disabilities, and probably of most other ills in education, is to be found in the fact that a teacher is given so many pupils and such inadequate technical facilities that it is utterly impossible for her to secure more than a most superficial understanding of individual cases, and wholly inadequate materials and equipment and information to make adjustment to their individual needs

> We find that reading disabilities can not only be cured but prevented by most teachers when they have only from five to ten to work with. We have studied different methods of grouping within classes and different schemes of co-operation and specialization among teachers in several classes which will, in some degree, compensate for the large number of pupils in a group and the large number of educational problems within a typical class. Pushed to what seems to us to be reasonable conclusions, rather extensive changes in school organization are indicated.

Professor Gates properly concludes that extensive changes in school organization are required. The whole problem of class size needs a thorough reconsideration. There have grown up in this country wholly indefensible practices with respect to class size. In the early grades of the elementary school, where the pupils are immature, unfamiliar with intellectual processes, and most in need of personal attention, classes are large; in the high school, where the pupils may reasonably be supposed to have had some acquaintance with the intellectual ways of life and to have acquired at least some measure of independence, classes are relatively small and in some cases extremely small. Surely, as pupils progress through the grades, they should be expected to exhibit some increase in independence; they should be able to master their studies with less attention from the teachers. There would seem to be no sound reason in educational theory why, in general, high-school classes should not be materially larger than classes in the lower grades. There is, indeed, convincing experimental evidence to the effect that, where certain objectives are to be accomplished and certain methods are pursued, as satisfactory results may be had in a large class as in a small. No doubt much of the work in high school could be effectively accomplished in much larger classes than commonly prevail. This is not to say, of course, that all the objectives of secondary education may be readily realized by methods adapted to large-class instruction, but it does mean that the whole problem of class size at the secondary-school level should be examined in terms of objectives and methods.

It is obvious that the large class which prevails in the elementary grades is due primarily to economic rather than to educational considerations. The rapid growth of urban communities was accompanied by marked increases in school enrolments and by a sharp rise in educational costs. School boards everywhere were faced with the problem of keeping down expenses. The most obvious economy in building construction and in the teaching service was to increase the size of classes, and, since most pupils were enrolled in the elementary grades, it was in these grades that the greatest economies could be effected. In most cities thousands of dollars could be saved by increasing by a single pupil the average size of classes in the elementary grades.

It is entirely possible that changes in the growth of population may afford school administrators an opportunity to reduce the size of classes. As a result of the declining birth-rate, the number of children of elementary-school age in most urban communities is decreasing markedly. In 1934 there were enrolled in public kindergartens and in each of the first four grades of the public elementary school, smaller numbers of pupils than were enrolled in these grades in 1930. Chapter ii of the *Biennial Survey of Education in the United States: 1932–34* shows that for the biennium 1932–34 the percentage of decrease in the kindergarten and in each of the first five grades was as follows: kindergarten, 14.2; Grade I, 5.4; Grade II, 5.2; Grade III, 1.9; Grade IV, 0.6; Grade V, 1.2. In 1932 there were 143,173 fewer pupils enrolled in public kindergartens and elementary schools than were enrolled in 1930, and in 1934 there were 370,383 fewer pupils enrolled in these grades than in 1932. School administrators everywhere should take advantage of the declining elementary-school enrolment to bring about an urgently needed reform in class size. This end might be accomplished by adopting a policy of not reducing the number of elementary teachers as enrolments grow smaller, thereby allowing class size to decrease automatically.

TWO RECENT COURT DECISIONS

In a recently decided case the Supreme Court of North Dakota held that a board of education has no authority to impose a tuition charge on a pupil of school age who, because of indifference and indolence, failed to complete the high-school course within the prescribed time. The following paragraphs are quoted from the opinion of the court.

> Plaintiff's son attended the high school for a period of four years, but did not complete the course of study required to graduate. Defendants in their answer

allege that this failure was because of idleness and indifference on his part. Thereafter he sought to continue as a student in the high school, but the defendants, enforcing the regulation above set forth, refused him permission to do so unless and until the tuition charge should be paid. Thereupon plaintiff began the instant action. . . . .

The constitution of North Dakota . . . . imposes upon the legislature the duty to make provision for the establishment and maintenance of a system of free public schools. Pursuant to this mandate the legislature erected a public-school system. . . . . And the legislature declared . . . . that "the public schools provided for in this chapter shall be at all times equally free, open, and accessible to all children over six and under twenty-one years of age residing in the district." . . . .

But it must be remembered that the defendant board of education is a creature of the legislature. Such a corporate body has no powers that are not either expressly or impliedly conferred by the statutes giving it life or essential to effectuate the purposes of its creation. And in defining these powers, the rule of strict construction applies, and any doubt as to their existence or extent must be resolved against it. . . . . While this statute confers broad general powers upon the board, nevertheless it must be considered in the light of the policy as declared in section 1343, *supra*, that "the public schools . . . . shall be at all times equally free, open, and accessible to all children over six and under twenty-one years of age residing in the district." It is one thing to pass rules and regulations for the organization, reception, government, and instruction of pupils, their suspension, expulsion, or transfer; it is another to impose a charge for school privileges. In the one case the board of education is clothed with a wide discretion; in the other it has none. In the one case its acts are presumptively reasonable and proper; in the other its acts being beyond its authority, no presumptions attend. Payment for school privileges cannot be exacted from a bad or indolent pupil any more than it can from a good and industrious one. No statute can be found which attempts to authorize the imposition of a tuition charge on resident children of school age. If a pupil be habitually indolent, it is for the board of education and its agents to determine whether or not he shall be suspended or expelled. . . . .

The defendants contend that the high-school period is clearly limited by accepted practice and by statutory implication to four years. In this behalf they point to the definite tendency on the part of high-school authorities generally to discourage attendance in an ordinary high-school course beyond four years, to the rules generally prescribed for the government of musical, athletic, and other activities; to the high-school courses that are so constructed as to enable the average pupil to complete them in four years; and to the statute, chapter 260, Sess. Laws 1935, which limits to four years the period during which tuition may be paid for high-school pupils attending school outside the district of their residence. Be this as it may, it is all beside the point. It does not spell out

> authority for high schools to charge tuition to pupils of school age residing within the districts wherein the schools are functioning.
>
> It is clear to us that the regulation involved in the instant case is unreasonable and beyond the power of the board to enact and enforce.[1]

A second decision by the same court is of interest to school administrators. It holds that a contract made with a board of education in disregard of a statute requiring competitive bidding is void and not subject to ratification. The court said in part:

> The question then is as to the effect of section 1356 with respect to the transaction out of which this case grows This section is a statute of general application. . . . . Clearly, the original purpose behind this statute was to protect school districts from possible collusion and dishonesty and insure that, where material exceeding $100 in value was purchased by their governing boards, it should be obtained at the best possible price. The statute was intended to preclude favoritism and jobbing. . . . . To permit contracts to be made without compliance with the terms of the statute would defeat the clear intent and purpose thereof. Ordinarily the presumption is that school officers' acts done in the performance of duty are legal, but that presumption cannot arise in the face of a clear failure to do those acts in the manner required by the statute and in such a way as to defeat its evident purposes. The contract was invalid and unenforceable. . . . .
>
> But the plaintiff contends that the contract as originally entered into was subsequently ratified by the school district and that such ratification is evidenced by the acts and conduct of the school board with respect thereto. . . . . It is true that a contract made by the directors on behalf of a school district, though not binding upon the district because irregularly made, may, in some instances, become binding by a subsequent ratification. . . . But this rule applies only where the contract was one into which the district might lawfully have entered at the time it was thus irregularly made and which it was within the power of the district to make at the time and in the manner of its ratification. . . . There can be no ratification unless the acts relied upon to effect it are sufficient to support the contract as an original matter. . . . . In the instant case there never was any attempt to comply with the requirements of section 1356, either at the time the contract was entered into or thereafter, and therefore there was no ratification.
>
> Plaintiff further contends that it is not equitable that a public corporation should be permitted to retain valuable property without paying therefor. The question here is not as to whether the plaintiff can recover the property obtained from it by the defendant or the reasonable value thereof. The plaintiff seeks to recover the contractual purchase price We express no opinion as to whether an action to recover the property or the reasonable value would lie[2]

---

[1] *Batty* v. *Board of Education*, 269 N W. 49.

[2] *St. Paul Foundry Co.* v. *Burnstad School District No.* 31, 269 N W 738.

allege that this failure was because of idleness and indifference on his part. Thereafter he sought to continue as a student in the high school, but the defendants, enforcing the regulation above set forth, refused him permission to do so unless and until the tuition charge should be paid. Thereupon plaintiff began the instant action. . . . .

The constitution of North Dakota . . . . imposes upon the legislature the duty to make provision for the establishment and maintenance of a system of free public schools. Pursuant to this mandate the legislature erected a public-school system. . . . . And the legislature declared . . . . that "the public schools provided for in this chapter shall be at all times equally free, open, and accessible to all children over six and under twenty-one years of age residing in the district." . . . .

But it must be remembered that the defendant board of education is a creature of the legislature. Such a corporate body has no powers that are not either expressly or impliedly conferred by the statutes giving it life or essential to effectuate the purposes of its creation. And in defining these powers, the rule of strict construction applies, and any doubt as to their existence or extent must be resolved against it. . . . . While this statute confers broad general powers upon the board, nevertheless it must be considered in the light of the policy as declared in section 1343, *supra*, that "the public schools . . . . shall be at all times equally free, open, and accessible to all children over six and under twenty-one years of age residing in the district." It is one thing to pass rules and regulations for the organization, reception, government, and instruction of pupils, their suspension, expulsion, or transfer; it is another to impose a charge for school privileges. In the one case the board of education is clothed with a wide discretion; in the other it has none. In the one case its acts are presumptively reasonable and proper, in the other its acts being beyond its authority, no presumptions attend. Payment for school privileges cannot be exacted from a bad or indolent pupil any more than it can from a good and industrious one. No statute can be found which attempts to authorize the imposition of a tuition charge on resident children of school age. If a pupil be habitually indolent, it is for the board of education and its agents to determine whether or not he shall be suspended or expelled. . . .

The defendants contend that the high-school period is clearly limited by accepted practice and by statutory implication to four years. In this behalf they point to the definite tendency on the part of high-school authorities generally to discourage attendance in an ordinary high-school course beyond four years; to the rules generally prescribed for the government of musical, athletic, and other activities; to the high-school courses that are so constructed as to enable the average pupil to complete them in four years; and to the statute, chapter 260, Sess. Laws 1935, which limits to four years the period during which tuition may be paid for high-school pupils attending school outside the district of their residence. Be this as it may, it is all beside the point. It does not spell out authority for high schools to charge tuition to pupils of school age residing within the districts wherein the schools are functioning.

It is clear to us that the regulation involved in the instant case is unreasonable and beyond the power of the board to enact and enforce.[1]

A second decision by the same court is of interest to school administrators. It holds that a contract made with a board of education in disregard of a statute requiring competitive bidding is void and not subject to ratification. The court said in part:

> The question then is as to the effect of section 1356 with respect to the transaction out of which this case grows. This section is a statute of general application. . . . . Clearly, the original purpose behind this statute was to protect school districts from possible collusion and dishonesty and insure that, where material exceeding $100 in value was purchased by their governing boards, it should be obtained at the best possible price. The statute was intended to preclude favoritism and jobbing. . . . . To permit contracts to be made without compliance with the terms of the statute would defeat the clear intent and purpose thereof. Ordinarily the presumption is that school officers' acts done in the performance of duty are legal, but that presumption cannot arise in the face of a clear failure to do those acts in the manner required by the statute and in such a way as to defeat its evident purposes. The contract was invalid and unenforceable . . . .
>
> But the plaintiff contends that the contract as originally entered into was subsequently ratified by the school district and that such ratification is evidenced by the acts and conduct of the school board with respect thereto. . . . . It is true that a contract made by the directors on behalf of a school district, though not binding upon the district because irregularly made, may, in some instances, become binding by a subsequent ratification. . . . . But this rule applies only where the contract was one into which the district might lawfully have entered at the time it was thus irregularly made and which it was within the power of the district to make at the time and in the manner of its ratification . . . . There can be no ratification unless the acts relied upon to effect it are sufficient to support the contract as an original matter. . . . . In the instant case there never was any attempt to comply with the requirements of section 1356, either at the time the contract was entered into or thereafter, and therefore there was no ratification.
>
> Plaintiff further contends that it is not equitable that a public corporation should be permitted to retain valuable property without paying therefor. The question here is not as to whether the plaintiff can recover the property obtained from it by the defendant or the reasonable value thereof. The plaintiff seeks to recover the contractual purchase price. We express no opinion as to whether an action to recover the property or the reasonable value would lie.[2]

---

[1] *Batty* v *Board of Education*, 269 N.W 49.

[2] *St. Paul Foundry Co* v. *Burnstad School District No* 31, 269 N.W 738

A Brighter Prospect for the Schools

In his recent annual report, United States Commissioner of Education John W. Studebaker, indicates clearly that the schools and the colleges of this country are beginning to recover from some of the more disastrous consequences of the depression. The following summary statement is quoted from a recent issue of the *New York Times*.

A general improvement in the condition of public schools from the distress occasioned by the depression was reported today by John W. Studebaker, commissioner of education, in his annual report to the Secretary of the Interior.

Fewer schools needed federal financial aid in keeping open in 1936 than in the two or three years immediately preceding, Mr. Studebaker said. In addition the physical plants of schools in many localities were improved with the financial assistance of the Public Works Administration.

Teachers' salaries, as well as expenditures for operation and maintenance, have shown an increase in both urban and rural communities, the report added. Kindergartens, classes for the handicapped, night schools, and other specialized activities are being gradually restored where previously curtailed.

"Enrolments in lower grades of the elementary schools have been decreasing, due to the falling birth-rate, while high-school enrolments have been increasing," said Mr. Studebaker. "The number of pupils who came back to high school as postgraduates, and the number enrolling in junior colleges were greatly increased.

"Special interest in young boys and girls out of school was developed through the Civilian Conservation Corps and the National Youth Administration."

Discussing the situation in the colleges, the report said:

"Enrolments for 1935-36 were back nearly to the 1931-32 figure. Income from endowments had increased slightly above its low. About half the cut in public funds had been restored.

"The Federal Student Aid program, which provides jobs to about 110,000 young people in college, at a cost of $1,500,000 per month, has been of unquestioned help to both these young people and the colleges. The P.W A. has stimulated the movement to construct buildings on college campuses by approving projects at colleges amounting to about $60,000,000.

"Social-science courses experienced a rapid increase in enrolment. There was a widespread increase in student forums, and an increase in departments and schools organized to train for public service.

"Demands for higher standards of training for teachers were general, while graduate courses in engineering increased rapidly and special institutes for alumni became more common."

Seventy-five per cent of the C.C.C. enrollees are now voluntarily participating in some form of educational activity, the report continued. "Assistant corps area educational advisers [are] assigned to each of the nine corps areas to assist educational advisers and district commanders in better supervision and administration of the camp educational programs.

"During the year 1,321 educational advisers, all college graduates, were appointed It is estimated that 35,000 illiterate enrollees have been taught to read and write in C.C.C. camps."

THE PROVINCE OF HIGHER EDUCATION

For some time and in not a few quarters, voices have been raised which indicate that all is not well with the higher learning in this country The function of the university, the program of teaching and research that should be carried on in higher institutions, the nature of the higher mental processes, the structural organization of the educational system—all are being subjected to critical analysis and discussion In his recently published biennial message to the people of Minnesota, L. D. Coffman, president of the University of Minnesota, describes in broad outline what he considers the province of the state university in American life:

> What should a great university be? There are two conceptions of a university in the world today. One is represented by the English and Scottish universities and the other by the American state universities. The British point of view was ably presented by Sir James Irvine of St. Andrews at a conference held at New York University in 1932. Sir James said:
>
> "The essential function of a university is to train the mind, and that type of disinterested study which has stood the test of time in the ancient universities is best suited to nourish the growing intellect. . . . . My conviction is that the universities will continue to produce leaders of both thought and action if they make it their special aim to produce thinkers . . . A university is responsible for enlarging the boundaries of knowledge rather than for colonizing the territory it explores"
>
> It is clear that Sir James would not have a university too much concerned with current events, nor have it drawn into the arena of social and political conflict. His university would stand somewhat aloof as the world rushes swiftly by. His staff would not spend their time trying to reorganize society, nor would they be on leave of absence engaged on governmental projects. His school would not offer instruction in subjects designed to fit one for the practice of some skill. There would be no courses in home economics, in journalism, nor in trade and industrial education. Courses to train for careers as managers of dude ranches, hotels, or police forces, and curriculums for beauticians, morticians, barbers, and foremen in shops would be utterly inconceivable in an English university.

In Sir James's university, men would gather wisdom by understanding, and understanding would be acquired by studying the problems that appeal to the mind. Men would grow strong by working with ideas. Fundamental subjects rather than the specialties would characterize the curriculum. Even in the professional fields the British would steadfastly adhere to this principle. . . . .

The conceptions of a university have not changed materially at St. Andrews in a hundred years. Figuratively speaking, St. Andrews sits on Mount Olympus free from the pressures of the world, studying the needs of the flocks in the valley below, and shedding luster and learning upon them according to their need It is a magnificent conception of what a university should be; it is one that we should keep constantly in mind lest we dissipate our intellectual strength upon the lures and social vagaries of the times.

Powerful as is the appeal of Sir James Irvine's picture, it does not fully pertain to the pattern of the modern land-grant university in the United States. Just as we should guard ourselves against becoming too "modern," so the university he describes must beware of becoming too sheltered. We must avoid overemphasis of skills and techniques; many foreign universities must beware of the dangers involved in overemphasis of traditional learning. We perhaps spend too much effort in trying to reorganize society; they, in contrast, do not spend enough in seeking to understand it. The attainment of a happy balance between these two conceptions is a matter to which we should give particular attention at the present time. This is especially true for the state university, because of its closeness to the people of the commonwealth who give it support. They make demands upon it. They turn to it for help in solving their daily problems.

A university does not confine its activities to teaching; it is even more an institution of inquiry. The scientific spirit should pervade and activate its atmosphere. Within the limits of its resources it must carry on researches in every field. We should constantly remind ourselves that the university that devotes itself most diligently to fine teaching and to its own researches will be rewarded in days to come through the satisfaction that follows the accomplishment of a well-done task. There is no greater reward. Universities must conduct their researches without thought of gain to themselves. Their staffs must pursue their inquiries with a spirit of selflessness that characterizes no other group. And yet a state university by its very nature teems with a variety of projects, investigations, and researches that affect the economic welfare of the commonwealth by which it is maintained. Even so, universities must never temporize, or fall prey to the allurements of the moment; they must not be swayed by the noise and tumultuous shouting; they must look far into the future and pursue their immediate ways calmly, unafraid, open-minded—always trying to discover new knowledge and to advance human learning.

In my judgment a university should not be concerned with teaching and research alone; it should advance personal culture as well A university that in its training of students relies solely upon a library, laboratories, and classrooms, will fail in one of its most important responsibilities. Things of the spirit are no less important than things of the mind. I would have a university put an indelible stamp of culture upon its students. By culture I mean appreciation of the fine arts—painting, music, literature—I mean elegant speech, good manners and address, a genuine conception of sportsmanship. A "good life" involves these in a fundamental way. . . . .

I would have this culture of which I speak become a part of their lives and be fully absorbed in their personalities. They would live it, not merely wear it externally, like a dress. "Art as a way of life" is no empty term. It is a fact, but one too often neglected by our educational institutions. . . . .

In addition to their concern with teaching on a high level, with research of every kind, and with the elevation of the aesthetic and personal ideals and practices of their students, state universities must devote a portion of their energy to the dissemination of knowledge. The usual ways of doing this we know well enough. There is one service which has hitherto received scant attention to which I should like to make reference. My opinions with regard to it have arisen out of the various efforts to provide education for the adult population in municipalities, in states, and in the nation. Universities have been working in this field for many years through their extension departments and by giving occasional lectures at various centers. It is clear to everyone familiar with the situation that we are not accomplishing as much as we wish by these means.

Various factors tend to keep the adult population in a state of comparative ignorance. One of these is the speed with which human knowledge is accumulating. At the University of Minnesota we found it necessary, because of the advances in medical sciences, to repeat in the Medical School a course for students in the Senior year that had three years earlier been given to them as Freshmen. Fifteen years ago I knew all of the statistical techniques in educational inquiry, but when a controversy arose in our institution with some statistical experts in another institution and copies of their letters passed over my desk, I had to admit that I did not know what they were talking about. Nearly every professional man finds himself in the same situation sooner or later, partly because new knowledge has accumulated too rapidly for him to assimilate and partly because of his own inertia.

Too few of the university graduates become or remain effective leaders. Nearly every representative of the learned professions experiences an intellectual letdown a few years after he leaves college. No matter how conscientious professional leaders are, the gap between what they know and what they ought to know widens.

We have now erected near the center of the campus a building having living accommodations, classrooms and seminars, a library, and a chapel. We shall encourage doctors to return to the University once every four years, the lawyers, the engineers, the public-school leaders, the ministers, and the representatives of other groups, we hope, will come at various intervals for genuine study in refresher courses. We believe this program we are inaugurating will do much to elevate and maintain a high intellectual standard among all of the professional classes of the state and that the benefits of it will be revealed in a better quality of service to the public. We have appropriately named this new building the Center for Continuation Study.

THE UNIVERSITY OF CHICAGO DINNER

The University of Chicago Dinner, given annually during the meeting of the Department of Superintendence of the National Education Association, will be held at St. Charles Hotel, New Orleans, Louisiana, on Wednesday evening, February 24, 1937. Alumni, former students, and friends of the University are most cordially invited to attend the dinner. Tickets, at the rate of $1.50 each, may be secured from Professor Robert C. Woellner, University of Chicago.

WHO'S WHO IN THIS ISSUE

GEORGE C. KYTE, professor of education at the University of California. MILDRED A. DAWSON, supervisor of childhood education at the University of Georgia. INEZ B. PETERSEN, elementary supervisor in the public schools of Ironwood, Michigan. DOROTHY M. DAVIS, research associate in the Child Welfare Research Station at the State University of Iowa. FRANK T. WILSON, instructor at Hunter College, New York City. WILLIAM C. REAVIS, professor of education at the University of Chicago. NELSON B. HENRY, associate professor of education at the University of Chicago.

CAUSES OF FIRST-GRADE NON-PROMOTION IN THE LIGHT OF MEASURED INTELLIGENCE

GEORGE C. KYTE
University of California

SOURCE OF DATA

The data used in this study of non-promotion were assembled from the records accumulated in a progressive city school system in California. For many years the elementary-school staff have been endeavoring to teach according to progressive methods and, at the same time, have striven to utilize scientific means and measures to diagnose and adjust individual cases. The adjustment program has included case studies and testing of various types. Many teachers and principals have become skilled in administering and interpreting mental and educational tests. The personnel of the research division have stood ready to aid the teaching staff in the interpretation and the use of assembled research data.

For more years than are included in the present study, therefore, efforts have been made to study carefully all children facing possible non-promotion. Before the end of each half-year such cases are reported to the principal of each school and, through him, to the research division. The report on each child includes a great deal of information. In most instances he has been given at least one individual intelligence test. The teacher reports the results of the test and also the causes which, in her opinion, have contributed to the pupil's lack of readiness for the next grade in school.

Over the years the number of non-promoted pupils in the elementary schools has decreased markedly. During the past twelve years the average non-promotion per year has been only 3.8 per cent of the enrolment in the first six grades. During the same period non-promotions in the first grade averaged 8 7 per cent of the enrolment in that grade. Ten and five-tenths per cent of the total number of children enrolled in the low-first grade were failed, while 6 8 per cent of the children in the high-first grade were not promoted at the end of the term.

From August, 1921, to June, 1933, a period of twelve school years, 1,407 children in the low-first grade and 821 pupils in the high-first grade were not promoted. Complete data regarding some cases could not be reported at the time of the failures. Inability to speak English, prolonged absence from school, withdrawal from school, and transfer into the city late in the school term accounted for numerous instances of unavoidably incomplete records. Children tested by means of group intelligence tests were also omitted from the study. The final number of children regarding whom complete data, including Binet intelligence quotients, were obtained, included 933 low-first-grade and 552 high-first-grade pupils. Data regarding the 2,379 reported causes of failure of the 1,485 non-promoted pupils included in the study are given in Table I.

CAUSES OF NON-PROMOTION OF ALL FIRST-GRADE PUPILS

The data for "All causes" given in Table I show that 52 per cent of all specified causes of failure occur in the case of children of normal intelligence, according to Terman's classifications.[1] Children with superior intelligence or higher account for 12 per cent of the causes, but pupils with intelligence below normal account for 36 per cent of the causes.

"Learns slowly" was the most common cause reported for the non-promotion of the children. Of the 317 cases reported for both grades, 57 per cent were children with normal mentality, 31 per cent were cases classifiable as dull, and over 6 per cent were either feeble-minded or mentally deficient. Only 6 per cent of the cases were above normal in intelligence.

"Immaturity" contributed to the failure of 306 cases in both low-first and high-first grades. Three per cent of this group were very superior in measured intelligence, and an additional 9 per cent were superior. Almost 56 per cent were children with normal mental ability. About 21 per cent had intelligence ratings of dull, and 11 per cent were either borderline cases or were definitely feeble-minded.

---

[1] Lewis M. Terman, *The Measurement of Intelligence*, p. 79. Boston. Houghton Mifflin Co., 1916.

"Irregular attendance" was reported as one of the causes of non-promotion of 269 children in both grades. Nearly 59 per cent of the group had normal intelligence, and approximately 14 per cent had superior or very superior mentality. On the other hand, 20 per cent fell in the classification of dull, and over 7 per cent were either nearly or actually feeble-minded.

"Poor health but not absent" was a designated cause in 197 cases of non-promotion in the two grades. The distribution of the intelligence quotients coincides markedly with that for "All causes." Almost 13 per cent were children with at least superior intelligence, but nearly 14 per cent were pupils of very low mentality. Included with the latter group should be noted the approximate 21 per cent classified as dull. About 53 per cent possessed normal intelligence.

"Absence due to illness" as a contributing factor in non-promotion is a cause somewhat similar to the cause just discussed. Only 92 cases had been given Binet tests. Almost 59 per cent had normal mentality. Fifteen per cent were superior, and 15 per cent were dull. Over 5 per cent were very superior, and 5 per cent were either nearly or definitely feeble-minded.

In the case of 194 non-promoted pupils in both grades, the teachers indicated "Low mentality" as a reason for failure. The test data disclosed that 12.4 per cent of these children had normal intelligence and 0.5 per cent were of superior mentality. Children with less than average intelligence, however, constituted 87 per cent of the group. Terman, in discussing this type of mentality, points to the probability that a child rated as dull will have difficulty in making progress at the same rate as children with average intelligence. Almost 24 per cent of the cases had intelligence quotients classified as borderline deficiency, and another 22 per cent were definitely feeble-minded.

Of the 1,485 children included in this study, only 169 were listed as "Weak in reading." Pupils possessing normal mentality made up 64 per cent of this group, and nearly 12 per cent had superior intelligence.

"Lack of application and attention" was a contributing cause of non-promotion in 160 mentally tested cases in the two grades. Chil-

TABLE I

PERCENTAGE DISTRIBUTION, ACCORDING TO INTELLIGENCE QUOTIENTS OF PUPILS, OF 2,379 CAUSES REPORTED BY TEACHERS FOR NON-PROMOTION OF 933 LOW-FIRST AND 552 HIGH-FIRST-GRADE PUPILS

CAUSE OF NON-PROMOTION	PERCENTAGE OF CAUSES REPORTED FOR PUPILS WITH INTELLIGENCE QUOTIENTS OF—							NUMBER OF CASES
	Below 70	70–79	80–89	90–109	110–19	120–29	130 and Above	
Learns slowly:								
Low-first grade	2.3	6.3	33.7	51.4	5.7	. . . .	0.6	175
High-first grade.	0.7	2.8	26.8	63.4	4.9	1.4	. . .	142
Both grades	1.6	4.7	30.6	56.8	5.4	0.6	0.3	317
Immaturity:								
Low-first grade	4.2	9.8	23.7	50.9	8.9	2.2	0.4	224
High-first grade. . . .	3.7	. .	13.4	69.5	9.8	2.4	1.2	82
Both grades	3.9	7.2	20.9	55.9	9.2	2.3	0.7	306
Irregular attendance:								
Low-first grade	2.3	6.4	19.3	57.9	9.9	2.9	1.2	171
High-first grade . . .	1.0	4.1	21.4	60.2	10.2	3.1	. . . .	98
Both grades	1.9	5.6	20.1	58.7	10.0	3.0	0.7	269
Poor health but not absent:								
Low-first grade.	7.2	8.8	18.4	53.5	7.9	3.5	0.9	114
High-first grade. . .	3.6	7.2	24.1	51.8	12.0	1.2	. .	83
Both grades	5.6	8.1	20.8	52.8	9.6	2.5	0.6	197
Low mentality:								
Low-first grade. . . .	27.6	28.4	31.0	13.0	. . . .		.	116
High-first grade.	14.1	16.7	56.4	11.5	1.3	. . .	.	78
Both grades. . . .	22.2	23.7	41.2	12.4	0.5	. . . . . .	. . . .	194
Weak in reading:								
Low-first grade.	4.3	8.6	16.1	59.1	10.8	1.1	. .	93
High-first grade. . . .	1.3	2.6	14.5	69.7	11.8	. .	.	76
Both grades.	3.0	6.0	15.4	63.9	11.2	0.6	. .	169
Lack of application and attention:								
Low-first grade	3.8	5.7	18.1	51.5	18.1	2.9	. . .	105
High-first grade	3.6	7.3	12.7	52.7	20.0	1.8	1.8	55
Both grades . .	3.7	6.2	16.3	51.9	18.8	2.5	0.6	160

TABLE I—*Continued*

CAUSE OF NON-PROMOTION	PERCENTAGE OF CAUSES REPORTED FOR PUPILS WITH INTELLIGENCE QUOTIENTS OF—							NUMBER OF CASES
	Below 70	70–79	80–89	90–109	110–19	120–29	130 and Above	
Change of school during year.								
Low-first grade	4.3	2.9	20.3	55.1	13.0	4.3	...	69
High-first grade		2.1	23.4	59.6	10.7	2.1	2.1	47
Both grades	2.6	2.6	21.6	56.9	12.1	3.4	0.9	116
Foreign-language handicap:								
Low-first grade	9.2	21.5	40.0	29.3	...	.	...	65
High-first grade	6.2	21.9	28.1	40.6	3.1	...	...	32
Both grades	8.2	21.7	36.1	33.0	1.0	....	...	97
Absence due to illness:								
Low-first grade	2.0	6.1	18.4	53.0	16.3	4.1	...	49
High-first grade	....	2.3	11.6	65.1	14.0	7.0	..	43
Both grades	1.1	4.3	15.2	58.7	15.2	5.4	..	92
Handicapping home conditions								
Low-first grade	2.2	8.7	8.7	71.7	6.5	2.2	...	46
High-first grade	7.7	7.7	7.7	65.4	11.5	.	.	26
Both grades	4.2	8.3	8.3	69.4	8.3	1.4	.....	72
Lack of effort:								
Low-first grade	3.1	3.1	25.0	46.9	21.9	..	..	32
High-first grade	4.3	....	47.8	34.8	8.7	4.3	...	23
Both grades	3.6	1.8	34.6	41.8	16.4	1.8	..	55
Miscellaneous character traits:								
Low-first grade	3.1	9.4	21.9	53.1	9.4	3.1	.	32
High-first grade	13.6		4.5	63.6	13.6	4.5	...	22
Both grades	7.4	5.6	14.8	57.4	11.1	3.7	.	54
Received with weak foundation:								
Low-first grade	4.5	4.5	22.7	54.5	13.6		-	22
High-first grade	..	3.2	22.6	64.5	9.7	.		31
Both grades	1.9	3.8	22.6	60.3	11.3	.	.	53

TABLE I—*Continued*

Cause of Non-Promotion	Percentage of Causes Reported for Pupils with Intelligence Quotients of—							Number of Cases
	Below 70	70–79	80–89	90–109	110–19	120–29	130 and Above	
Nervousness:								
Low-first grade	5.0	10.0	15.0	55.0	15.0	....	....	20
High-first grade	5.9	5.9	11.8	58.8	17.6	....	....	17
Both grades	5.4	8.1	13.5	56.8	16.2	....	....	37
Defective speech								
Low-first grade	6.9	6.9	24.1	55.2	3.4	3.4	....	29
High-first grade	....	....	16.7	66.7	16.7	....	....	6
Both grades	5.7	5.7	22.9	57.1	5.7	2.9	....	35
Behavior problem:								
Low-first grade	....	....	20.0	70.0	10.0	....	....	20
High-first grade	....	....	12.5	62.5	12.5	12.5	....	8
Both grades	....	....	17.9	67.9	10.7	3.6	....	28
Defective vision:								
Low-first grade	....	23.1	7.7	38.5	15.4	15.4	....	13
High-first grade	....	....	21.4	57.1	7.1	14.3	....	14
Both grades	....	11.1	14.8	48.1	11.1	14.8	....	27
Not socially adjusted:								
Low-first grade	8.3	....	16.7	58.3	16.7	....	....	12
High-first grade	25.0	....	25.0	....	50.0	....	....	8
Both grades	15.0	....	20.0	35.0	30.0	....	....	20
Timidity:								
Low-first grade	....	33.3	33.3	33.3	....	....	....	12
High-first grade	....	....	16.7	50.0	16.7	....	16.7	6
Both grades	....	22.2	27.8	38.9	5.6	....	5.6	18
Illegal, under-age enrolment:								
Low-first grade	....	9.1	18.2	45.4	18.2	9.1	....	11
High-first grade	25.0	....	....	75.0	....	....	....	4
Both grades	6.7	6.7	13.3	53.3	13.3	6.7	....	15
Defective hearing:								
Low-first grade	....	....	11.1	55.6	33.3	....	....	9
High-first grade	....	....	....	....	100.0	....	....	2
Both grades	....	....	9.1	45.4	45.4	....	....	11

TABLE I—*Continued*

Cause of Non-Promotion	Percentage of Causes Reported for Pupils with Intelligence Quotients of—							Number of Cases
	Below 70	70–79	80–89	90–109	110–19	120–29	130 and Above	
Weak in numbers:								
Low-first grade	......	...	66.7	33.3	......	......	......	3
High-first grade	..	14.3	42.9	42.9	......	......	......	7
Both grades	......	10.0	50.0	40.0	......	......	......	10
Lack of kindergarten training.								
Low-first grade	14.3	...	14.3	57.1	14.3	...	...	7
High-first grade	.	....	...	...	....	.....	..	...
Both grades	14.3	..	14.3	57.1	14.3	...	..	7
Weak in writing.								
Low-first grade	.....	...	.....	50.0	50.0	.....	..	2
High-first grade	.....	33.3	.....	66.7	.	....	..	3
Both grades	...	20.0	....	60.0	20.0	....	.	5
Lack of self-confidence:								
Low-first grade	...	33.3	.	66.7	..	...	..	3
High-first grade	...	....	50.0	50.0	...	......	....	2
Both grades	....	20.0	20.0	60.0	.	...	....	5
Physical defects:*								
Low-first grade	...	...	..	...	...	..	...	.
High-first grade	......	...	....	100.0	..	..	.	1
Both grades	...	...	....	100.0	.	...	...	1
Miscellaneous:								
Low-first grade	....	50.0	....	50.0	.....	.	..	2
High-first grade	...	.....	14.3	71.4	14.3	.	..	7
Both grades	.	11.1	11.1	66.7	11.1	..	..	9
All causes:								
Low-first grade	5.8	9.8	23.1	49.7	9.3	2.0	0.3	1,456
High-first grade	3.7	5.2	23.1	55.6	10.1	1.9	0.4	923
Both grades	5.0	8.0	23.1	52.0	9.6	2.0	0.3	2,379

---

* Other than defects of vision, hearing, and speech

dren with normal intelligence made up 52 per cent of the group. Nearly 19 per cent were pupils with superior mentality, and about 3 per cent were children of very superior general ability. Undoubtedly, the nature of inattention and of poor application on the part of the bright children was somewhat different from that exhibited by the children of subnormal intelligence. Some evidence of this fact is to be seen from the distribution of the 55 cases in which "Lack of effort" was a reported cause of non-promotion. Eighteen per cent of the latter group were superior, but 40 per cent were subnormal in mentality.

"Change of school" during the half-year in which non-promotion occurred was reported in the case of 116 tested children in both grades. This number would have exceeded 200 if the teachers had been able to find time to test many children who were transferred to their classes near the end of the school term. Of the cases tested, 56.9 per cent were children with normal mental ability. Sixteen per cent were superior or very superior in intelligence. On the other hand, 5 per cent were feeble-minded or only slightly higher, and almost 22 per cent were dull.

Of 163 pupils in both grades reported as not promoted because of the handicap of speaking little or no English, 97 with a "Foreign-language handicap" were given Binet tests. Because of the results of various research studies with respect to the influence of this type of handicap on intelligence-test scores, there is good reason to interpret with caution the data obtained about the cases reported. The extent to which a measure of intelligence is an index of general readiness of a child to undertake the work of his grade, however, may enter into the interpretation of the data. Only 1 per cent of the group tested above normal in ability, and 33 per cent were average. The remaining 66 per cent were classified below normal in general ability.

For each of the other causes of non-promotion, the number of cases is too small to allow much reliance to be placed on the details of the distributions. Where the cases bunch in considerable numbers, however, they seem to indicate noteworthy groups. "Handicapping home conditions" as a cause of failure occurred in 72 cases in the two grades, 69 per cent being children with normal intelligence; nearly 21 per cent, subnormal. "Received with weak foundation" by transfer or by promotion contributed to 53 cases of failure in both grades. Sixty per cent of this group were children with average ability, and 28 per cent were less capable pupils. "Nervousness," reported in 37 cases, occurred largely in children with normal mentality, nearly 57 per cent of the group falling in this classification. Sixteen per cent, however, were children with superior intelligence, 27 per cent, inferior. "Defective speech" contributed to 35 cases of non-promotion. Thirty-four per cent of these children possessed low mentality; 57 per cent, normal ability.

CAUSES OF NON-PROMOTION OF LOW-FIRST-GRADE PUPILS

Data regarding the 933 tested children who were not promoted in the low-first grade are shown in Table I. The figures for "All causes" show that slightly less than 50 per cent of the total number of causes reported concerned pupils with average intelligence. Nearly 39 per cent of the causes were reported about children with low mentality, but almost 12 per cent were recorded regarding cases of superior or very superior children. With respect to the data on specific causes, only the distributions which differ markedly from those for the corresponding items for both grades need to be discussed.

The first cause of non-promotion which attracts attention is "Immaturity." In the case of low-first-grade failures, it was by far the most commonly reported cause. Of the 224 cases, almost 24 per cent were dull, and 14 per cent were either borderline or feeble-minded pupils. Children with normal intelligence constituted approximately 51 per cent of the group.

"Learns slowly" was reported in 175 cases of low-first-grade failure. About 9 per cent of the group were feeble-minded or nearly so; 34 per cent, dull.

"Low mentality" was a recorded cause of non-promotion in 116 cases. Only 13 per cent of these cases were of normal intelligence, and none were rated as superior.

"Weak in reading" was a contributing cause in 93 low-first-grade failures. Fifty-nine per cent of these weak readers had normal intelligence, and 12 per cent were superior or very superior

The distributions of the remaining most commonly occurring items for the low-first grade are markedly like the corresponding distributions for both grades. Some of the less common causes in the low-first grade present distributions with dominant bunchings which are significant. Almost 22 per cent of the low-first-grade cases not promoted because of "Lack of effort" were children of superior mental ability. Of the group reported with "Defective speech," 7 per cent were feeble-minded, 7 per cent were borderline cases, and 24 per cent were mentally dull. Of the 32 pupils with "Miscellaneous character traits," 22 per cent tested dull, and 13 per cent fell below this type of mentality.

Relatively few types of causes were distributed differently with respect to intelligence in the case of boys as contrasted with girls. The few which were common causes of failure should be noted. Of the boys not promoted because they "learned slowly," over 7 per cent were either superior or very superior in intelligence, and almost 38 per cent were subnormal. Only 4 per cent of the girls not promoted for this reason were superior mentally, and 49 per cent were subnormal. In cases of "Immaturity" 14 per cent of the boys had superior intellects and 32 per cent inferior ability, but only 7 per cent of the girls were superior or very superior mentally and 46 per cent were subnormal. "Lack of application and attention" was the cause of non-promotion reported for 76 boys as contrasted with 29 girls. Of the boys, 25 per cent were above normal in mentality, and 25 per cent were below normal. Of the girls, 10 per cent had superior ability; 35 per cent, subnormal.

CAUSES OF NON-PROMOTION OF HIGH-FIRST-GRADE PUPILS

The data for "All causes" in the case of the 552 tested high-first-grade pupils not promoted indicate a larger percentage among children with normal intelligence than was noted in the cases of non-promotions in the low-first grade. On the other hand, the percentages of causes reported for feeble-minded and borderline cases in the high-first grade are, respectively, less than the percentages in the low-first grade.

By far the most common cause of non-promotion in the high-first grade was reported as "Learns slowly." The distribution of the 142 cases according to intelligence is similar to that of the same cause in the low-first grade. The 98 high-first-grade cases of "Irregular attendance" and the 83 cases of "Poor health but not absent" form distributions closely approximating those found for the corresponding causes in the low-first grade

In the high-first grade certain common causes of non-promotion assumed a different significance than was noted for the corresponding causes in the low-first grade. Of the 76 cases reported "Weak in reading," almost 70 per cent possessed normal intelligence and only 4 per cent tested very low mentally. "Immaturity" was recorded in the case of 82 high-first-grade failures. About 70 per cent of these were children of average mental ability, and only 17 per cent were subnormal. The distribution formed by the 78 cases of "Low mentality" indicates that over 56 per cent tested dull, and almost 31 per cent were types of lower mentality. "Absence due to illness" was listed as a cause in 43 cases. Only 2 per cent of this group approached feeble-mindedness, and about 12 per cent were dull, while 65 per cent had average mental ability. In the high-first grade "Foreign-language handicap" caused a larger proportion of failures of children with normal intelligence or superior ability than in the low-first grade.

With respect to the distributions for certain causes and, in some instances, the actual number of cases reported, differences were found between boys and girls in the high-first grade. Only 16 girls as contrasted with 60 boys were reported as not promoted because they were "Weak in reading." Fifteen per cent of these boys possessed superior mental ability, and 17 per cent were subnormal. Twenty-five per cent of the girls were subnormal, and 70 per cent were normal in intelligence. Sixteen girls and 62 boys were reported not promoted because of "Low mentality." The mental tests disclosed, however, that 2 per cent of these boys had superior intelligence and 14 per cent possessed average ability. All sixteen girls tested below normal. Thirteen girls and 42 boys were accredited with non-promotion because of "Lack of application and attention." Five per cent of these boys tested very superior; another 24 per cent, superior; and only 24 per cent, below normal. Less than 8 per cent of the girls were superior in intelligence, and 31 per cent were inferior. In case of non-promotion with "Irregular attendance" as a cause, 54 per cent of the boys possessed average ability and 32 per cent below average, but 71 per cent of the girls were normal mentally and 17 per cent were subnormal. "Poor health but not absent" caused non-pro-tributions for both grades. Some of the less common causes in the low-first grade present distributions with dominant bunchings which are significant. Almost 22 per cent of the low-first-grade cases not promoted because of "Lack of effort" were children of superior mental ability. Of the group reported with "Defective speech," 7 per cent were feeble-minded, 7 per cent were borderline cases, and 24 per cent were mentally dull. Of the 32 pupils with "Miscellaneous character traits," 22 per cent tested dull, and 13 per cent fell below this type of mentality.

Relatively few types of causes were distributed differently with respect to intelligence in the case of boys as contrasted with girls. The few which were common causes of failure should be noted. Of the boys not promoted because they "learned slowly," over 7 per cent were either superior or very superior in intelligence, and almost 38 per cent were subnormal. Only 4 per cent of the girls not promoted for this reason were superior mentally, and 49 per cent were subnormal. In cases of "Immaturity" 14 per cent of the boys had superior intellects and 32 per cent inferior ability, but only 7 per cent of the girls were superior or very superior mentally and 46 per cent were subnormal. "Lack of application and attention" was the cause of non-promotion reported for 76 boys as contrasted with 29 girls. Of the boys, 25 per cent were above normal in mentality, and 25 per cent were below normal. Of the girls, 10 per cent had superior ability; 35 per cent, subnormal.

CAUSES OF NON-PROMOTION OF HIGH-FIRST-GRADE PUPILS

The data for "All causes" in the case of the 552 tested high-first-grade pupils not promoted indicate a larger percentage among children with normal intelligence than was noted in the cases of non-promotions in the low-first grade. On the other hand, the percentages of causes reported for feeble-minded and borderline cases in the high-first grade are, respectively, less than the percentages in the low-first grade.

By far the most common cause of non-promotion in the high-first grade was reported as "Learns slowly." The distribution of the 142 cases according to intelligence is similar to that of the same cause in the low-first grade. The 98 high-first-grade cases of "Irregular attendance" and the 83 cases of "Poor health but not absent" form distributions closely approximating those found for the corresponding causes in the low-first grade.

In the high-first grade certain common causes of non-promotion assumed a different significance than was noted for the corresponding causes in the low-first grade. Of the 76 cases reported "Weak in reading," almost 70 per cent possessed normal intelligence and only 4 per cent tested very low mentally. "Immaturity" was recorded in the case of 82 high-first-grade failures. About 70 per cent of these were children of average mental ability, and only 17 per cent were subnormal. The distribution formed by the 78 cases of "Low mentality" indicates that over 56 per cent tested dull, and almost 31 per cent were types of lower mentality. "Absence due to illness" was listed as a cause in 43 cases. Only 2 per cent of this group approached feeble-mindedness, and about 12 per cent were dull, while 65 per cent had average mental ability. In the high-first grade "Foreign-language handicap" caused a larger proportion of failures of children with normal intelligence or superior ability than in the low-first grade.

With respect to the distributions for certain causes and, in some instances, the actual number of cases reported, differences were found between boys and girls in the high-first grade. Only 16 girls as contrasted with 60 boys were reported as not promoted because they were "Weak in reading." Fifteen per cent of these boys possessed superior mental ability, and 17 per cent were subnormal. Twenty-five per cent of the girls were subnormal, and 70 per cent were normal in intelligence. Sixteen girls and 62 boys were reported not promoted because of "Low mentality." The mental tests disclosed, however, that 2 per cent of these boys had superior intelligence and 14 per cent possessed average ability. All sixteen girls tested below normal. Thirteen girls and 42 boys were accredited with non-promotion because of "Lack of application and attention." Five per cent of these boys tested very superior; another 24 per cent, superior; and only 24 per cent, below normal. Less than 8 per cent of the girls were superior in intelligence, and 31 per cent were inferior. In case of non-promotion with "Irregular attendance" as a cause, 54 per cent of the boys possessed average ability and 32 per cent below average, but 71 per cent of the girls were normal mentally and 17 per cent were subnormal. "Poor health but not absent" caused non-promotions among all types of boys more markedly than among all types of girls. Seventeen per cent of the boys were above normal, and 39 per cent were below normal in mental ability. Seven per cent of the girls had superior mentality, and 27 per cent possessed inferior mentality.

MOST COMMON CAUSES OF NON-PROMOTION

Table II contains data with respect to the most common single causes and combinations of causes of non-promotion in the first grade. "Immaturity," with 118 tested cases, headed the list. Sixty per cent of the group were children of normal intelligence; 33 per cent, subnormal; and nearly 7 per cent, superior. Eighty-nine of the 118 cases were low-first-grade non-promotions. Of this group, 54 per cent had average mental ability; 39 per cent, inferior ability. Of the 29 non-promotions in the high-first grade, 79 per cent were pupils of normal ability; 14 per cent, subnormal.

"Learns slowly" was the second most common cause of non-promotion, 58 cases occurring in the low-first grade and 50 in the high-first grade. Of the 108 cases, nearly 53 per cent had normal intelligence; 38 per cent, below normal. Only 43 per cent of the low-first-grade group were average in mental ability; 48 per cent were inferior. On the other hand, 64 per cent of the high-first-grade group were normal in intelligence; 26 per cent, subnormal.

"Irregular attendance" caused 100 non-promotions, 69 occurring in the low-first grade and 31 in the high-first grade. In each grade 64 per cent of the pupils measured average in intelligence. Fifteen per cent of the total group—14 per cent of the low-first-grade group and 16 per cent of the high-first-grade group—were children with superior mentality.

Only 88 cases were reported not promoted for the sole reason of "Low mentality." Eleven per cent of this group tested normal in intelligence. Of the 54 cases in the low-first grade, 7 per cent had average intelligence. Of the 34 cases in the high-first grade, 18 per cent were normal.

"Weak in reading" was the single cause of failure in 66 cases, 40 being in the low-first grade. Of this grade group, 60 per cent possessed normal mental ability; 18 per cent, superior. Of the high-first-grade group, 81 per cent were children of average ability, and 12 per cent had superior ability.

TABLE II

PERCENTAGE DISTRIBUTION, ACCORDING TO INTELLIGENCE QUOTIENTS OF PUPILS, OF THE MOST COMMON SINGLE CAUSES AND COMBINATIONS OF CAUSES REPORTED BY TEACHERS FOR NON-PROMOTION OF 1,485 FIRST-GRADE PUPILS

CAUSE OF NON-PROMOTION	PERCENTAGE OF CAUSES REPORTED FOR PUPILS WITH INTELLIGENCE QUOTIENTS OF—							NUMBER OF CASES
	Below 70	70–79	80–89	90–109	110–19	120–29	130 and Above	
Single causes:								
Immaturity	4 2	5 9	22 9	60 2	5 1	0 8	0.8	118
Learns slowly	0 9	6 5	30 6	52 8	6 5	1 8	0.9	108
Irregular attendance	..	6 0	15 0	64 0	10 0	4 0	1.0	100
Low mentality	27 3	21 6	39 8	11.3	....	.	..	88
Weak in reading	1 5	1 5	13 6	68.2	13 6	1 5	.	66
Absence due to illness	1.7	3 4	15 2	64 4	8 5	6 8	.	59
Poor health but not absent	4.0	8 0	20 0	58 0	10.0	.	...	50
Lack of application and attention		2 4	14 3	61 9	19 0		2 4	42
Foreign-language handicap	7.5	17 5	47 5	27.5	..	....	. .	40
Change of school during year	3 3	6.7	23 3	56.7	6.7	3 3	.	30
Received with weak foundation	6 7	6.7	6 7	73 3	6 7	. .	...	15
Combinations of causes								
Learns slowly and irregular attendance	...	3 1	31 2	62 5	3 1	. ..	. .	32
Change of school during year and received with weak foundation	...	4 5	27 3	68 2	.			22
Immaturity and irregular attendance	.	5 9	29 4	52 9	5.9	5 9	. .	17
Weak in reading and immaturity		.	6 2	87 5	6 2	..	...	16
Change of school during year and irregular attendance	...	. .	20 0	53 3	26 7	...	...	15
Low mentality and poor health but not absent	33 3	13.3	40 0	13 3	.	.	. .	15
Weak in reading and learns slowly	. . .	13 3	26.7	60 0	.	.	.	15
Immaturity and lack of application and attention	14 3	14.3	21 4	21 4	21.4	7 1	..	14
Immaturity and learns slowly	.	14.3	21 4	64 3		.	.	14
Learns slowly and poor health but not absent	..		30.0	70 0	.	.	.	10
Low mentality and irregular attendance	30 0	20 0	10 0	40 0	.	. .		10
Immaturity and poor health but not absent	.	20.0	20 0	20.0	40 0	..	.	10
Foreign-language handicap and low mentality	28.6	57 1	14 3	..	.			7
Foreign-language handicap and irregular attendance		20.0	40 0	40 0				5

The most common combination of causes reported, "Learns slowly and irregular attendance," included only 32 cases of non-promotion. Since about 63 per cent of this group tested average in mental ability and 34 per cent below average, this combination of causes militated against very few mentally superior children. No superior children were found among the high-first-grade failures resulting from this combination of causes. "Change of school during year and received with weak foundation" resulted in 22 non-promotions. Slightly over 68 per cent of the group were children with normal mental ability. No child with superior intelligence failed because of this combination of causes.

CONCLUSIONS

Although the many specific conclusions which may be drawn from the data are of prime importance from the standpoint of diagnosis and prevention of non-promotions, several generalizations should be kept in mind: (1) The rate at which each child learns must be given careful attention early in the school year—in fact, throughout a considerable period of his schooling. (2) The maturity of many children must be considered in order that careful planning may be made to meet the particular needs of the children, especially those of the immature type. (3) Absence from school, including irregular attendance and absence due to illness, should be compensated for in the instructional program in order to reduce non-promotions. (4) Children who continue to attend school though handicapped by poor health also need special attention. (5) Many children are not challenged by the instructional program. They become the non-promoted pupils because of (*a*) lack of application and attention, (*b*) lack of effort, and (*c*) in some instances behavior problems. (6) Mobility, over which neither the children who change schools nor the teachers who receive them have control, creates an instructional problem in a sufficient number of cases to warrant the formation of plans to meet it. (7) Non-promotions among children of superior mental ability furnish a special challenge. (8) Since the largest proportion of non-promoted pupils were children possessing average intelligence, particular attention must be given to the problem of why normal children fail to make normal progress.

CHILDREN'S PREFERENCES FOR CONVERSATIONAL TOPICS

MILDRED A. DAWSON
The University of Georgia

UNDERLYING PRINCIPLES AND THEORIES

This study of children's interests in topics of conversation is predicated on the thesis that the objectives of the curriculum should be conceived in the light of the attitudes, tastes, and activities characteristic of childhood. In the words of Bobbitt, often repeated in his class lectures, "The road we travel is our goal." That is to say, the experiences provided by the language-composition curriculum should be selected in the light of the prevalent interests and activities of the pupils. The curriculum should form an articulate part in a definite, unified, coherent program of school experiences designed increasingly to identify the child with the aims and activities derived from an analysis of social life as a whole. It is assumed that effective teaching is based on the psychological principle that learning is most functional and economical in a lifelike situation which to the learner seems vital and worth while. To ascertain the natural interests of young children is, therefore, an important step in the planning of the curriculum if effective and appealing oral and written expressional situations are to be attained.

THE PROBLEM

The investigation reported in this article was concerned with identifying the topics involved in children's free conversation and discussion. It was assumed that children, when left to direct their own verbal expression, will naturally talk of those matters of the greatest moment and interest to them.

The problem was delimited in three aspects: (1) The investigation included only pupils in the four upper grades of the six-grade elementary school. (2) It dealt with a single aspect of verbal expression, namely, oral expression. (3) It was restricted to those expressional situations where pupils were self-directive, not guided in any sense by adults. On the basis of these limitations the problem resolved itself into three subphases: (*a*) What topics do children in Grades III–VI discuss spontaneously? (*b*) What differences, if any, obtain in the choices of topics by children living in rural communities and in urban areas? (*c*) What evidence exists that there is or is not a general change in preference from grade to grade?

NATURE OF PREVIOUS RELATED RESEARCH

With the expectation that topics of intrinsic interest to children might already have been identified by previous investigators, the writer made a survey of the research that had been reported in the field of language and composition. Four studies of a pertinent nature were located, three of which were comparatively limited and non-representative in their sampling and meager in results. The fourth was comprehensive, satisfactorily objective, and explicitly concerned with the spontaneous verbal expression of pupils as evinced in their out-of-school correspondence.

Coy isolated a group of eighteen very bright children in Grade IV and supervised their writing of seventeen weekly compositions on assigned topics. These were evaluated on the basis of the Nassau County Supplement to the Hillegas Scale. Coy concluded that word lists least productive of good composition are those "less likely to give free rein to the play of imagination in which these children seem to delight."[1]

Brown[2] too worked in a somewhat formalized situation. She made a vocabulary count of the words used in a series of talks which pupils volunteered to present after preparation at home. For a period of five months, the fourth grade to be studied devoted twenty-seven forty-minute periods to undirected talks, which were stenographically recorded. Only incidentally did the investigator determine the percentages of talks devoted to certain topics. The percentages for the four topics most frequently discussed were: personal experiences, 33.9; room programs, 18.7; study of birds, 11.0; and book reviews, 8.5. Experiences of others, room exhibits, pictures, children's illustrations, pets, and a room party were other topics discussed.

---

[1] Genevieve Lenore Coy, *The Interests, Abilities, and Achievements of a Special Class for Gifted Children*, p. 96. Teachers College Contributions to Education, No. 131. New York: Teachers College, Columbia University, 1923.

[2] Merle Brown, "A Study of the Vocabulary Used in Oral Expression by a Group of Fourth Grade Children," *Educational Method*, XV (October, 1935), 39–44.

Zyve[1] used a superior technique in that she utilized situations where expression was unhampered by formal preparation. She kept stenographic reports of the undirected conversation of a third-grade group twice daily for 125 periods of 15 minutes each. The children, accustomed to conversing freely during activity periods, were presumably spontaneous during the periods under consideration in the study. The topics and the percentages of the total number of words used in discussing each are as follows: home play, 27.1; animals, 14.5; school work, 14.4; automobile trips, 13.0; special subjects, 12.9; group control, 8.1; co-operative activities, 5.0; minor affairs, 2.1; miscellaneous, 1.5; and English usage, 1.4.

Fitzgerald's study[2] was a representative and an objective investigation of children's interests in topics of composition. He assembled 3,184 letters written by children in Grades IV–VI in 41 states. These letters, written by children in life outside the school, were collected from the recipients. The report of Fitzgerald's investigation presents a detailed list of topics, only the general classifications of which can be included here: (1) experiences, activities, events; (2) objects; (3) school; (4) the weather; and (5) animals.

METHOD OF INVESTIGATION

Admittedly, the present investigation of children's interests as revealed in their spontaneous verbal expression is not scientific. The data are far too limited in scope, and the controls in collecting and reporting them were too loose. However, the plan from the beginning of the project was scarcely that it be scientific because time and facilities were not available for a study sufficiently comprehensive and thorough to be absolutely representative. The results were intended to be suggestive of the topics of composition that might well be included in a curriculum currently under construction, and it is believed that this practical purpose was sufficiently well served.

---

[1] Claire T. Zyve, "Conversation among Children," *Teachers College Record*, XXIX (October, 1927), 46–61.

[2] James A. Fitzgerald, "Children's Spontaneous Writing," *Peabody Journal of Education*, X (November, 1932), 172–78.

Four considerations guided the formulation of plans for the investigation: (1) Only two months were available for collecting and organizing data. (2) Only persons sure to co-operate willingly and promptly should be solicited for help. (3) Within these limits, as representative a sampling as possible should be obtained. (4) The data should represent the natural reactions of children free of adult domination.

Teachers were requested to record the topics discussed in children's conversation at recess periods or in socialized classroom situations where the teacher was to be a passive listener. Data were to be collected in Grades III–VI, inclusive, over a period of six weeks. One weekly period of five to ten minutes was all that was asked, the restriction of sampling being designed to encourage willing co-operation. Several schools reported the use of a daily period.

TABLE I

NUMBER OF SCHOOLS REPORTING TOPICS OF CONVERSATION OF PUPILS IN GRADES III–VI

GRADE LEVEL	NUMBER OF SCHOOLS		
	Village	Urban	Both
III	9	6	15
IV	7	9	16
V	6	8	14
VI	7	6	13

Data were received from twenty-four schools in seven states: Illinois, Iowa, Kansas, Nebraska, Oklahoma, Pennsylvania, and Wyoming. These states are representative of four type regions of the nation. Ten of the schools were urban; that is, they were situated in communities of more than twenty-five hundred people. There were two one-room rural schools, and twelve were located in villages or small towns.

Table I indicates how many school systems reported at the various grade levels. The rural schools are not included. No estimate of the number of children involved can be given because some of the larger towns sent reports that represented several schools in the system. While the small number of groups co-operating cannot give an entirely representative sampling, yet the number would seem sufficiently large to give strong suggestions of the more general interests to which curriculum workers should give heed.

GRADE PREFERENCES FOR CONVERSATIONAL TOPICS

Table *II* shows the frequency with which the children mentioned certain topics of conversation. The data are presented in terms of twenty-three general classifications, in which specific topics admittedly lose their identity. To some extent, the latter will be identified in the discussion concerning the table. The reader will note that most of the topics could have been classified under personal experiences, but the practice in tabulation was to include an account of an experience under some one of the other twenty-two topics if possible.

TABLE II

GENERAL TOPICS OF CHILDREN'S FREE CONVERSATION AND NUMBER OF TIMES EACH TOPIC WAS THE SUBJECT OF CONVERSATION

Topic	Grade III	Grade IV	Grade V	Grade VI	All Grades
Games and sports	77	107	50	81	315
Personal experiences	74	94	46	46	260
Trips	62	120	46	26	254
Pets and their tricks	64	47	49	27	187
Family and friends	53	73	19	16	161
Accidents	49	68	9	23	149
School	25	30	29	34	118
Parties	31	23	17	17	88
Accomplishments (boasting)	27	23	19	10	79
Shows and programs	24	29	9	14	76
Wild life	22	24	16	12	74
Thoughts and dreams	13	38	12	10	73
Current events (history, politics)	16	16	15	16	63
Nature (elements, rocks, trees, plants)	13	25	7	9	54
Books (outside reading)	11	23	11	9	54
Rides by vehicle	18	9	7	14	48
Holidays	16	8	11	7	42
Helping others	8	18	6	3	35
Toys	17	12	5	1	35
Rides on animals	9	9	4	11	33
Work as an occupation	6	9	6	4	25
Cooking and sewing	5	1	4	14	24
Riddles, jokes, and stories	4	4	3	2	13

In general, children tend to discuss active types of experiences most frequently. Sports, personal experiences, trips, pets and their tricks, and accidents, for example, were discussed much more often than nature, books, holidays, work, and riddles. The younger children seem to be more general in their interests than are the older pupils, as is shown by the greater concentration of frequencies at the tops of the columns for Grades V and VI. All grades agree in giving sports and games a prominent place in their conversation, these being predominantly baseball, vacation sports, and currently played games. The frequent references to trips can be attributed to the occurrence of unusual experiences during vacation travel.

GRADE III

1 Games and sports
2 Personal experiences
3. Pets and their tricks
4 Trips
5. Family and friends
6. Accidents
7. Parties
8. Accomplishments (boasting)
9. School
10. Shows and programs

GRADE IV

1. Trips
2. Games and sports
3. Personal experiences
4. Family and friends
5. Accidents
6. Pets and their tricks
7. Thoughts and dreams
8. School
9. Shows and programs
10. Nature

GRADE V

1. Games and sports
2. Pets and their tricks
3.5. Personal experiences
3.5. Trips
5. School
6.5. Family and friends
6.5. Accomplishments (boasting)
8. Parties
9. Wild life
10. Current events

GRADE VI

1. Games and sports
2. Personal experiences
3. School
4. Pets and their tricks
5. Trips
6. Accidents
7. Parties
8.5. Family and friends
8.5. Current events
10. Shows and programs
10. Rides by vehicle
10. Cooking and sewing

As a means of facilitating the identification of the leading preferences at each grade level and to enable easy comparison among the grades, the first ten at each grade level are listed above in order of decreasing rank.

The reader cannot but be struck with the similarity of the four lists and the indication that the interests of children of the intermediate-grade ages are relatively stable. However, in studies of grade placement differences are especially significant. Subject to the scantiness of the data, the following tentative conclusions are advanced. In general, topics that rank high or low in one grade are correspondingly high or low at the other grade levels. Apparently, children tend to talk less and less about their family and friends as they go through grade school; on the other hand, they talk more about school. Fourth-grade pupils seem to be more prone to fancies and daydreaming and to like inanimate nature better than the children of other ages. Apparently, fifth-grade children enjoy wild life more than the boys and girls at other grade levels. Fifth-grade children also seem to be developing an interest in current events, which increases in Grade VI.

CONVERSATIONAL TOPICS IN SMALL SCHOOLS AND LARGE

Because experiences in urban and in rural communities may vary considerably, it was thought that the interests of pupils in these two environments might be significantly affected. With this possibility in mind the investigator organized the data in terms of the size of the community in which the co-operating school is located. Unfortunately, the data from the rural communities are too few to justify definite conclusions. The larger frequencies for the urban schools make the rank orders for them and for the total almost identical. Table III presents the absolute frequencies of mention and the rank order of the first ten items in each list.

To the investigator the principal significance of a comparison of data in rural and urban communities lies in the agreement in the children's interests as revealed in their verbal expression. A well-conceived curriculum should deal with topics of general appeal, and the children's interests in games and sports, pets, family and friends, school, and parties are about equal in both environments.

Only further investigation can determine whether the seeming differences in rural and urban children's interests are real. Assuming that they are real, it is interesting to conjecture on the possible factors that may account for these differences. Probably the rural children have not had opportunities for long vacation trips, such as the urban children discuss. Neither do they, apparently, lead the "rush-and-go" lives of the city children, and hence they have more time for indulging in fanciful thoughts and hopes and for mulling over their dreams. The low frequency of mention of wild life by the rural groups may argue the lack of interest in the familiar, or it may argue that better courses in natural science are offered in the city schools. Impressions gained during the tabulation of the raw data would favor the latter view. Again, the more restricted lives of the rural boys and girls may lead to the relatively more frequent discussion of school and radio programs and books, these topics being thus given higher ranks than they received in the urban counts. The figures similarly indicate that the rural children's lives give them more vital contact with serious occupation, or work.

TABLE III

NUMBER OF TIMES EACH TOPIC WAS THE SUBJECT OF CHILDREN'S CONVERSATION IN SMALL AND IN LARGE SCHOOLS

Topic	Number of Times Discussed			Rank Order of First Ten Topics		
	Small Schools	Large Schools	All Schools	Small Schools	Large Schools	All Schools
Games and sports	35	280	315	1	1	1
Personal experiences	23	237	260	4	3	2
Trips	12	242	254	9.5	2	3
Pets and their tricks	26	161	187	3	4	4
Family and friends	19	142	161	6.5	5	5
Accidents	33	116	149	2	6	6
School	22	96	118	5	7	7
Parties	14	74	88	9	8	8
Accomplishments (boasting)	7	72	79	...	9	9
Shows and programs	18	58	76	8	...	10
Wild life	6	68	74	...	10	...
Thoughts and dreams	19	54	73	6.5	...	...
Current events (history, politics)	12	51	63	9.5	...	...
Nature (elements, rocks, trees, plants)	5	49	54	...	...	...
Books (outside reading)	10	44	54	...	...	...
Rides by vehicle	5	43	48	...	...	...
Holidays	4	38	42	...	...	...
Helping others	2	33	35	...	...	...
Toys	4	31	35	...	...	...
Rides on animals	6	27	33	...	...	...
Work as an occupation	9	16	25	...	...	...
Cooking and sewing	2	22	24	...	...	...
Riddles, jokes, and stories	2	11	13	...	...	...

SUMMATION OF RESULTS OF THE STUDY

As in previous studies, there is general agreement on the appeal of certain topics of discussion. Personal experiences, play, and school rank high in all the investigations. The present study seems to indicate trips to be of more interest than did the earlier investigations. The results with regard to animals are discrepant, this study agreeing with Fitzgerald's in finding animals not a particularly popular topic of discussion yet agreeing with Zyve's conclusion that animals as *pets* are interesting. Weather is consistently found to be of minor interest. A difference in classification may account for the disagreement with regard to objects, which Fitzgerald found to be frequently discussed in children's letters but which were rarely included in the conversational topics identified by the present study.

The following conclusions may be tentatively reached as a result of the study. In general, children of the ages represented like to talk about their games and sports, their pets, their unique experiences, experiences of their families and friends, and trips which they have enjoyed. Young children seemingly have more general interests, a tendency to concentrate on a few topics being apparent with the older pupils. Some interests, such as family doings, appear to wane as outside interests, such as current events, begin to emerge.

Owing to scanty data for children in rural situations, the possible differences and likenesses in their interests and those of urban boys and girls have not been surely identified. However, the preferences for conversational topics seem to be practically identical, any differences that exist apparently resulting from variations in basic experiences.

Perhaps the most significant specific contribution of this report is that it presents conclusions and issues which need further investigation. It is hoped that other workers will be stimulated to an objective attack on the problem of children's preferences for conversational topics by techniques which will eliminate undue adult influence. A general contribution, the writer believes, may well be a newly awakened or renewed desire on the part of teachers to study the interests and activities of their pupils in order that these may be utilized in vitalizing classroom situations and in enlivening the curriculum.

THE READING-READINESS PROGRAM OF THE IRONWOOD PUBLIC SCHOOLS

INEZ B. PETERSEN
Public Schools, Ironwood, Michigan

A significant problem in present-day education is that of determining the reading readiness of a child before he enters Grade I. Recent researches have indicated that approximately 12 per cent of the general population needs special attention in reading.[1]

Reading disabilities seriously handicap pupils in their work in most school subjects, and as a result failure in mastery of school subjects has increased as reading requirements have grown. Schools are continually confronted with the problem of failing many pupils in each grade, the effect of such deficiency being cumulative. Thus, in many instances the child finds his tasks more and more difficult as he moves from grade to grade, and he becomes discouraged, drops out of school, and all too often emerges as a civic problem.

There can be no doubt that the best place to give attention to reading disabilities is in Grade I, before any reading has taken place, rather than to wait until some later grade after poor habits in reading have become established. This many-sided problem may be stated as follows: How can the mental, the physical, and the social-emotional factors be considered when the child is taught to read? These are the aspects of the problem which have been considered in an attempt to institute a scientific reading procedure in the schools of Ironwood, Michigan. It is the purpose of this article to describe in some detail the essential features of the program which has been put into effect.

MENTALITY AND READING READINESS

During the school year 1934–35 a reading-readiness program was initiated in the kindergarten of the local schools. It was decided first to determine the mental age and the intelligence quotient of every pupil in this department by administering the Stanford Revision of the Binet-Simon Intelligence Scale. Kindergarten teachers, who had been taught in a special class how to administer and to interpret this test, began their intelligence-testing programs during the latter part of the year. Each teacher was instructed to hand into the child-accounting office the mental age and the intelligence quotient of each child in her room. These data were transferred to the pupil's permanent record card filed in that office. At the same time, the teacher was asked to hand in a few descriptive statements concerning each of her pupils. These were to include not only the child's reactions to the various tests but also something about his weaknesses, special abilities, emotions, home conditions, and any information that the teacher thought might be of value to the first-grade teacher. Having access to these data at the beginning of the child's first year in the primary grade helped the first-grade teacher to understand her particular group and to adjust materials and methods in the light of the information at hand.

---

[1] Marion Monroe, *Children Who Cannot Read*, p. 17. Chicago: University of Chicago Press, 1932.

Next, the teachers were instructed in the use of the Lee-Clark Reading Readiness Test,[1] which was administered to all kindergarten children. Although the Lee-Clark test is a group test, the groups were kept as small as possible (never more than four in a group) because it was our belief that young children need close and careful observation and as much guidance as the tests permit.

GROUPING PUPILS FOR READING

All pupils who were to be in Grade I in the year 1935–36 were then divided into "transition" (non-reading) sections and ready-to-read sections. Since pupils scoring below twelve on the Lee-Clark test would, according to the test authors, probably fail, they were placed in the "transition group." Because few pupils scored below twelve, we decided to include also in the transition group all pupils, with a few exceptions, whose reading-readiness scores were below twenty-two and whose mental ages were five years or below. (According to the authors of the Lee-Clark test, pupils who have scores between twelve and twenty-two were likely to fail, two pupils failing out of five.) The teachers of transition groups were asked to observe their pupils closely and to make a special study of every pupil during the first six weeks of school, at the end of which it would be possible for instructors to decide where each child should be placed. Ready-to-read groups were also checked after the first six weeks because we felt that irregularities might have crept in here and there. All grouping was based mainly on the teacher's judgment of her pupils' abilities. As a rule, however, pupils who had originally been classified as ready to read remained in the groups designated as such, while many of the pupils who were classified in the non-reading groups were transferred into a reading group.

---

[1] J Murray Lee and Willis L Clark, Lee-Clark Reading Readiness Test Hollywood, California: Southern School Book Depository, Ltd , 1931.

The teachers who were given transition groups were assigned comparatively small classes in order that they might make complete case studies and that they might adapt themselves to a new procedure. The pupils with average and high reading-readiness scores were assigned the regular minimum and maximum requirements of the first-grade course of study in reading. The transition groups were given a special orientation course, after which the course of study could be met in part, depending on the various abilities. The following suggestions for procedure were issued at the beginning of the school year to the teachers of first-grade transition groups.

> One of the most important factors to consider in a non-reading group is giving the children opportunities for vital experiences which will enhance and make their learning more meaningful. If foreign material is put before the child for interpretation, the learning which results will in all probability be meaningless. The same holds true in reading. If meaning is not put into it, certainly thought cannot be gleaned from the printed page.
>
> So, especially in a transition group—and, for that matter, in any group—pupils must be provided with a foundation of meaningful facts or concepts, as well as a desire to want to learn to read, if satisfactory results are to be obtained. In any group one will find children lacking in experiences. Granted, many children who come to us have a wealth of information concerning pets, toys, stories, poems, rhymes, trips, music, and so forth, but many have a very meager background. According to the individual pupil reports made by the kindergarten teachers, it is found that many of the pupils now placed in the transition group come from homes where experiences are not extensive and where a foreign language is spoken. Hence, we must aim to give these pupils a better background as well as training in the use of the English language when they come to

us. Much, of course, has already been done in kindergarten, but we need to go still further.

We have during the past years attempted to acquaint the children with certain interesting things about which they should know. In our community life we have worked out a series of lessons that deal with the school, the home, the farm, and so forth. This should form the basis for teaching in the first grades. Teachers in transition groups are asked to use the community outline as a basis for their reading, together with the outlines in language and health that have also been constructed for this grade. This should give vital material with which to work until the child is ready to read and thus, in a measure, provide for an enriched background as well as for the establishment of better language, social, physical, and emotional habits.

Let us illustrate. The first unit in our community-life outline deals with the school The teacher, soon after school starts, is asked to conduct her pupils through the school to acquaint the pupils with their "day home." They meet, for instance, the principal or the custodian. When they return to their room, they will converse freely about their trip and make up a little story about things they have observed. The following story might be the result.

"We took a trip.
"We met the principal.
"We liked her.
"She was happy."

This story could be printed on a large sheet of oak tag with a rubber-stamp set, and space could be left at the sides for a picture of the principal. A picture cut from a magazine could be used for this. Other stories, of course, could be made, such as stories about nature, science, pets, mother, and the like. A farm could be constructed, and stories about the farm or pupil activities could be related. There is no doubt that the child's initial experiences in learning to read will influence and color later reading habits.

From these stories, which at first will be largely memory reading, will come word and phrase recognition. Many words will be taught in phrases, many as purely sight words Sentences and phrases, of course, should be quite short, the eye span of these children being fairly short. Picture illustration of words and phrases should be abundant and should be displayed wherever possible, objects in the room should be labeled, and incidental reading should abound. For a while, reading books and mechanics should be forgotten, unless there is a "felt" need for the first among the pupils.

In all groups, and especially in a non-reading group, pupils must be brought into contact with as many experiences as possible. Many excursions should be made, discussed, and read about in class. Purposeful activity should be the result of mental, social, physical, and emotional objectives which are essential to well-integrated personalities. Mental hygiene, for instance, may be taught incidentally in nature study and may include valuable lessons in social science, health, and reading, as well as bring about worth-while activities. In community life, the child will learn respect for, and courtesy toward, the storekeeper, the farmer, the policeman, the fireman, the janitor, and so forth; in language, he will learn a few things about courtesy and special days and such things as gratitude, thankfulness, spirit of giving, Easter joy, patriotism, and so forth. Ideals of conduct and proper mental adjustment must permeate all teaching and must invade all school materials.

In every group, of course, teachers are asked to individualize instruction as much as possible, and it may often be well to have as many as four or five reading groups within a class of thirty pupils. Some of these will need more drill than others, some will need more phonetic work, and some will need more teacher guidance. Material will also differ as to content and difficulty, and leadership and responsibility will vary with each division. In other words, all reading groups are flexible

SPECIAL MATERIAL FOR ONE TRANSITION GROUP

In the largest transition group the procedure outlined in these suggestions was somewhat changed. During the early part of the school year we became interested in *The Visual Readers*,[1] and we decided to use these books in this group, which was considered our special problem class.

There were several reasons for selecting the Keystone material. We felt that the subject matter would particularly appeal to these pupils because it contained common situations and topics suitable for children of meager mentality and social background. We believed the method would interest children of various types, especially the slower pupils, because of its appeal to the senses and the provision made for interesting repetition. The material is presented through the use of stereographs and lantern slides, which would enable the slow pupils to associate words with meanings as they exist in life-situations. So far our experiences with this method have been favorable. The group designated as School 3 in Tables I and II constitute this class.

REORGANIZATION OF PRIMARY DEPARTMENT

What will happen to the pupils who remain in the transition group? The plan is to reorganize the primary department in such a way that there will be no Grade I, II, or III. Instead, these will be designated as the "primary grades." Ready-to-read pupils will remain in the primary grades for three or fewer years, while some transition pupils will probably remain four years. It is hoped that the use of special materials and methods, such as the visual method mentioned, will enable many pupils in the transition groups to complete the primary grades in the normal period of three years.

---

[1] Mildred S. Smith, Florence E. Bergstrom, and Walter E. Dixon, *The Visua Readers*. Meadville, Pennsylvania: Keystone View Co, 1930.

TESTING SIGHT AND HEARING OF PUPILS

For a number of years regular inspections of the eyes, ears, nose, throat, teeth, and general physical condition of the pupils have been made. Questionable cases are referred to the health department where, as far as possible, pupils receive the necessary attention. Every year each kindergarten child is vaccinated for smallpox and inoculated against diphtheria. Some of these examinations have been extended in connection with the reading-readiness program, especially the testing of eyes and ears after the child enters Grade I.

Early in the year we procured the Keystone-Betts ophthalmic telebinocular, which is adapted for binocular tests of visual functions. Teachers and principals were trained in administering these eye tests so that each teacher would know the irregularities existing within her group and would give these defects consideration in all instruction. Thus, she knew where to place the near-sighted child and the far-sighted child; she knew the pupil with fusion difficulties; and, being aware of the weaknesses of her group, she adapted materials and methods to the various needs. The course of instruction in some schools was supplemented with stereograph slides. (These are invaluable for eye recreation, particularly with children who are having difficulty with fusion of vision. Generous use of stereographs goes far toward preventing difficulties in eye co-ordination, which many children experience.)

In Ironwood eye specialists have become interested in our work, and there is no doubt that in a few years regular eye-training classes will be held by these doctors, in co-operation with the schools, for the purpose of developing muscular eye co-ordination in pupils whose defects cannot be remedied by glasses. One of these specialists became so interested in our work that he took a special course in Chicago and is now conducting eye-training classes for pupils who have been referred to him through our program. It is hoped that, in time, teachers will be able to conduct similar classes in their own rooms under the advice and guidance of these doctors.

Hearing was tested by the 5-A audiometer, an apparatus designed for individual testing. Each child who had a loss of 6 per cent or more in one or both ears was reported to his parents, who were asked to consult a physician. Children who had a loss of less than 6 per cent were kept under close observation and will be retested from time to time. We are not yet certain concerning the reliability of this test for pupils in Grade I. The same holds true for the telebinocular tests.

The real remedy for defective hearing is medical treatment. Even treatment will not help in all cases, and the parents of many pupils cannot afford to give them proper medical attention. Thus, use must be made of measures which can be taken in the schoolroom. Although comparatively little in the way of real cure can be expected for all pupils, there are a number of measures which can be taken and which will help greatly. The following instructions have been issued to the teachers for the observation of hearing difficulties.

1. Each teacher must find out the cases of deficient hearing in her room and those which are to be under observation.
2. Seat hard-of-hearing people at the front of the room and away from the ventilation fan and other noises and distractions.
3. If the child has only one poor ear, seat him on the side of the room where the tones of your voice will strike the good ear first.
4. When talking to these people, enunciate clearly, using full lip-movements, and speak somewhat more slowly than you would in addressing a child with normal hearing. Do not exaggerate, however.
5. If it is apparent that a child with defective hearing is failing more on oral than written work, give greater emphasis to written work produced by him in measuring his achievement. This does not mean that he should be excluded from doing oral work. Oral contacts are especially important for a child with poor hearing. If he is cut off from oral contacts, he will tend to become antisocial and avoid people because of fear that he is being ridiculed.
6. Don't stand so a child has to face the light to watch a teacher
7. Don't ask child to lip read at a distance of more than three feet or so.
8. Child's eyes should be on level with teacher's lips.
9. Be sure the hard-of-hearing child is looking at you before you begin to speak.

STANDARDIZED TEST RESULTS

Two standardized tests were administered to the transition groups during the months of March and April, 1936. Tables I and II

TABLE I

AVERAGE SCORES OBTAINED BY TRANSITION GROUPS ON GATES SILENT READING TESTS, FORM 2 ADMINISTERED IN MARCH, 1936

School	Average Score (Test Norm = 1.6)			
	Type 1, Word Recognition	Type 2, Word Phrase, and Sentence Reading	Type 3, Reading of Directions	All Types
1	2.3	1.6	1.7	1.9
2	1.8	1.5	1.5	1.6
3	2.0	1.6	1.8	1.8
4	2.1	1.6	1.7	1.8
5	2.1	1.6	1.8	1.9
All schools	2.1	1.6	1.7	1.8

TABLE II

AVERAGE SCORES OBTAINED BY TRANSITION GROUPS AND BY ALL FIRST-GRADE PUPILS ON METROPOLITAN ACHIEVEMENT TEST IN READING FORM B, ADMINISTERED IN APRIL, 1936

Group	Average Score (Test Norm = 1.7)						
	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	All Tests
School 1:							
Transition group	2.3	1.6	2.6	1.2	1.9	1.8	1.9
All pupils	2.8	2.3	2.6	1.10	2.4	1.10	2.3
School 2:							
Transition group	1.8	1.6	1.4	1.2	1.9	1.8	1.6
All pupils	2.4	2.4	1.10	2.4	2.2	1.8	2.2
School 3:							
Transition group	2.1	1.7	1.8	1.4	1.8	1.7	1.7
All pupils	2.6	2.4	2.3	2.2	2.3	1.10	2.3
School 4:							
Transition group	2.2	2.1	1.8	1.6	2.2	1.8	1.9
All pupils	2.6	2.4	1.10	2.1	2.3	1.9	2.2
School 5:							
Transition group	1.9	1.8	1.8	1.4	2.1	1.9	1.8
All pupils	2.8	2.5	2.5	2.6	2.5	2.1	2.5
All schools:							
Transition groups	2.1	1.7	1.8	1.4	1.10	1.8	1.8
All pupils	2.7	2.4	2.4	2.2	2.3	1.10	2.3

reveal that in "All Types" these groups scored at or above the norm. The Metropolitan Achievement Test in Reading, Form B, was administered to all first-grade pupils in April. Table II indicates that the entire grade, including the transition groups, scored six months above the national norm. The test results show, then, that the reading-readiness program has been successful.

SUMMARY

When the first-grade teacher receives the kindergarten child, she knows several things that should be of value to her in determining each pupil's readiness to read and in adjusting her methods of procedure to the abilities of individual children. She knows the child's mental age; she has his reading-readiness score; she has his health record; she has definite instructions as to procedure in her particular group and, in some instances, especially chosen commercial materials. As soon as possible she secures audiometer and telebinocular records. From the report made by the kindergarten teacher she knows something about the child's social background, his emotional stability, his outstanding characteristics, and his physical handicaps.

So far as mastery of mechanics and subject matter is concerned, standardized tests show favorable results. In addition, pupils under this program seem more interested in reading than in previous years. Our conclusions, based on extensive and close observations, as to concomitants are positive rather than negative. The teachers heartily subscribe to the procedure and feel that, so far, the new reading program has been a success.

Parents have also indorsed the experiment, as is demonstrated by the fact that nearly all parent-teachers' associations in the city have asked that the procedure be explained to them, and at no time have we met with anything but approval. From all indications, this work will continue, with a few changes and some elaborations, during coming school years.

PRACTICAL SPEECH CORRECTION IN THE PUBLIC SCHOOLS

DOROTHY M DAVIS
State University of Iowa

More and more, administrators who formulate the educational policies of the schools are coming to feel that certain responsibilities which have been neglected in the past should be shouldered by the school. One of the major problems undertaken by the more progressive educational institutions is the task of equipping handicapped children for life. In this group are included the blind, the deaf, the crippled, the mentally defective, and the speech defective.

Surveys reveal that one out of every hundred school children is a stutterer.[1] This figure means that there are nearly three times as many stuttering children as there are blind and deaf-mute children combined. These statistics do not present the entire picture: for every stutterer there are nine other children presenting other types of speech defects. Approximately 10 per cent of the school population, then, have difficulties with speech.

According to Dr. Rogers,[2] speech correction was first introduced into the public schools of the United States in 1910, and at the time of his study over eighty American school systems were employing special teachers qualified to deal with this problem. Wisconsin is perhaps the most progressive state, for it has, through state appropriation of funds, established speech correction in twenty-one of its major cities.

The number of cases handled by each speech correctionist in the public schools is worthy of comment. Cities in the United States having one speech teacher have an average school enrolment of fifteen thousand. In terms of cases, each teacher, preceding correction, handles in the neighborhood of fifteen hundred cases. It is indeed a superhuman task for one person to handle adequately such a tremendous group. Ideally, no speech teacher should handle more than 175 cases at one time.

---

[1] Lee Edward Travis, *Speech Pathology*, p 97 New York· D Appleton & Co , 1931.

[2] James Frederick Rogers, *The Speech Defective School Child* United States Office of Education Bulletin No 7, 1931

The first task of the speech pathologist is to discover the pupils who need remedial work. This task is best accomplished by making a survey at the beginning of each school year. The methods of this survey vary with the age of the child being treated. Kindergarten children and those in the first two grades of the elementary school are best tested by means of an especially prepared picture-book. This book is so constructed that the child, in naming familiar pictured objects, is given an opportunity to try each English speech sound in all possible combinations and in all three positions in a word, that is, initially, medially, and finally. For instance, if it is desired to test the child's ability to pronounce the letter *r*, having him name pictures of a rabbit, a marble, and a car would tell what he does with that particular sound in the three possible positions. To children who are able to read are presented lists of sentences in which all English speech sounds are used in all combinations and positions.

After the survey is complete, the speech correctionist must enrol her pupils in classes. No speech pathologist works at one time with defectives of two types. For example, stutterers and lispers need different kinds of training, and a stutterer would not profit from being in a group with lispers. The task, then, is to diagnose each case and assign the child to a class. Although each speech defective is an individual problem, he will fall in one of the following general classifications: stuttering; lisping; delayed speech; letter-substituting; oral inaccuracy; voice deficiency; or organic defects, such as cleft palate, harelip, paralysis, or defective hearing.

Classes are kept as small as possible. In fact, in many cases it has been found advisable to treat each child separately. On the other hand, group work may be advantageous, for competition within the group and the audience situation are often a stimulus to hard work Furthermore, it is wise to keep in one class children of approximately the same age, for at different age levels the same material does not prove equally interesting, nor the same methods equally effective.

Ideally, some cases should be met daily and others at least three times a week, but often under a heavy case load the speech correctionist is unable to meet her children more than once a week. Even under these circumstances the improvement made by the children is gratifying. Usually classes do not exceed twenty minutes in length, for young children cannot attend to any one problem for more than that length of time.

The speech correctionist, before commencing remedial work, should make a detailed study of each child. This study is probably most complete in the case of stuttering, for here any seemingly trivial occurrence in the past may have an important bearing on the present difficulty. An adequate study includes a family history, designed to give information about physical, mental, emotional, or speech deficiencies among the child's relatives; a personal history, which sheds light on his development from birth to the present time; a physical examination, to determine whether his speech defect can be remedied only by medical attention; an intelligence test, to give the correctionist some idea of the child's ability to learn and of the standard of achievement possible for him; a personality inventory, to determine whether there are complexes developing as a result of his defect; and a school-achievement history, which shows whether his defect is acting to retard him in his school work. When all this information is assembled, the speech pathologist is able to evaluate adequately each case and to decide on a program of correction.

Another service of the speech teacher arises as a result of the family history. To gain this history, a call on the family of each child is imperative. In this interview the correctionist has a splendid opportunity to explain to the parents the factors in the environment which may be aggravating the child's condition, and she can enrol their co-operation in removing these conditions as far as possible. When the school-achievement history is obtained, the correctionist can discuss in detail with his classroom teacher the child whose speech is abnormal. After the classroom teacher is fully acquainted with the child's problem, she too can do much by her co-operation in helping the speech defective to recover.

The elaborate subject of therapy will not be discussed here, but a few words on the results of speech correction will be fitting. In Wisconsin the work of a representative year resulted in the correction of 25 per cent of the stutterers and the improvement of 59 per cent more. This result does not mean that there is no hope for the other 16 per cent but that in a single year a fourth of the stutterers were corrected. Considered over a period of years, relatively few stutterers are unaffected by consistent speech work. In other types of defects, as would be expected, the percentage of correction is higher. In Wisconsin in the same year (1929-30) approximately 40 per cent were corrected, and 47 per cent were improved.

In the majority of schools the opportunity for service by the speech correctionist is not limited to the correction of speech defects. Often she is the only member of the elementary-school faculty who has had more than the average training in general psychology, child psychology, and mental hygiene. As a result, the speech teacher is often consulted on the best course of action to pursue with problem children.

Often she is the only person in the school system who has had training in dealing with the partially deaf child. Under these circumstances she may organize a class for these children. In this class she is able to give the children help in the use of lip reading, or she can send them to competent specialists who can equip them with the type of hearing aid which best fits their individual cases. She also teaches them to utilize to the best advantage what hearing they have and to overcome those peculiarities of speech which often are characteristic of the partially deaf person. She may also help to keep the partially deaf child from developing personality difficulties.

Another service that she often renders is to conduct evening classes in local night schools to aid adults in overcoming their speech handicaps. The majority of these adults did not have an opportunity to attend speech-correction classes as children.

In addition to these services, the training of the average speech correctionist equips her to deal with reading disabilities in a diagnostic capacity and to advise the classroom teacher on the best techniques of retraining in each case.

Certainly no type of work is more satisfactory than that of a speech correctionist, for the results of her work are easily measured, and any improvement in a child's speech is indeed an improvement in the equipment with which he faces life.

CORRELATIONS OF VOCABULARY KNOWLEDGE WITH OTHER ABILITIES AND TRAITS IN GRADE I[1]

FRANK T. WILSON
Hunter College, New York City

INTRODUCTION

This report presents a minor phase of a study carried on in 1933–36 in the primary grades of the Horace Mann School of Teachers College, Columbia University. In an earlier article[2] the writer described the conditions under which this study was made and reported the correlations found between various factors and the information tests of two reading-readiness tests.

This report presents correlations derived from measures of vocabulary with seventy-six other measures and appraisals of the same pupils. The following three vocabulary tests were given, for which a combined score was computed.

1. Both lists for the vocabulary test in the Stanford Revision of the Binet-Simon Intelligence Scale.

2. Twenty words from the action-agent test of the Woodworth and Wells Association Tests:[3]

sleeps
scratches
flies
bites
swims
burns
cuts
blows
shoots
melts
sails
boils
floats
growls
stings
gallops
aches
explodes
roars
mews

---

[1] Prepared with the assistance of the United States Works Progress Administration, New York City, Project 65-97-295, Subproject 25.

[2] Frank T. Wilson, "Correlations of Information with Other Abilities and Traits in Grade I," *Elementary School Journal*, XXXVII (December, 1936), 295–301.

[3] R. S Woodworth and Frederic Lyman Wells, *Association Tests*, p 62. Psychological Monographs, Vol. XIII, No. 5. Princeton, New Jersey Psychological Review Co., 1911.

3. The following twenty-five words from Smith's list:[1]

button
too
paint
watermelon
lion
race
chest
icy
velvet
brownie
scarlet
pillar
dry
sometime
told
Saturday
worry
week
twin
prison
dynamite
allow
cylinder
bosom
saber

The twenty-five words from the Smith list were selected as follows: Lists A and D in the study were combined, and every fourth word was chosen. Three or four of these randomly selected words were dropped, however, and more suitable words from the list were substituted. The three tests were given individually in the manner prescribed in the directions.

The data of this report are in terms of correlations obtained by the rank-order method. To make it possible to secure the rank-orders, all measures and appraisals were reduced to numerical scores. Owing to lack of facilities it was not feasible to make all the computations that were possible in the original study. A "finder" device was used to select for computation the correlations that seemed to promise significance. It is believed that through the use of this device, although it was not altogether accurate, all the high and fairly high correlations were found. Most of the correlations omitted were probably nearer .00 than .50. The probable errors of rank-order correlation coefficients, when the number of cases is 25, range from ±.0237 for .90 to ±.1335 for .10.

The validity of many of the measures and appraisals is uncertain. Few correlations of seemingly unusual size were obtained, however, and few which were inconsistent with other correlations for the same kinds of traits and abilities as found in the complete data of the original study. The opinion of the teacher, of the school psychologist, and of other qualified persons who have studied the figures, is that the results have rather high validity.

FINDINGS

Table I shows the forty-eight computed correlations of the total vocabulary test with the other tests used in the study. The range of

---

[1] Madorah Elizabeth Smith, *An Investigation of the Development of the Sentence and the Extent of Vocabulary in Young Children*, p. 51. University of Iowa Studies in Child Welfare, Vol. III, No. 5. Iowa City, Iowa: University of Iowa, 1926.

TABLE I

CORRELATIONS OF TOTAL RESULTS ON VOCABULARY TESTS WITH FORTY-EIGHT OTHER MEASURES

Measure Correlated	Correlation with Vocabulary Tests
Van Wagenen Reading Readiness Tests, Perception of Relations	61
Gates Reading Diagnosis Tests:	
XI, 1, Repeat Nonsense Words*	55
X, 3 and 4, Give Initial and Final Sounds	.54
Van Wagenen Reading Readiness Tests, Memory Span for Ideas	.53
Gates Reading Diagnosis Tests·	
VIII, 2, Word Recognition, Visual Presentation	.49
X, Total, Auditory Perception Techniques	.46
XI, 2, Distinguish Words	.45
IX, 9, [Give] Letter Sounds	.44
Mental age	.41
Teacher's ranking in reading ability, November, 1933, prediction	.40
Metropolitan Readiness Test, Total	.40
Van Wagnenen Reading Readiness Tests, Range of Information	.39
Intelligence quotient	.39
Metropolitan Readiness Test, Numbers	.38
Gates Reading Diagnosis Tests:	
XIII, 1 and 2, Write Words	.37
XIII, 3, Write Letters	.37
Total letter-knowledge tests	.35
Gates Reading Diagnosis Tests, XV, 3, Memory Span, Nonsense Syllables	.34
Gates Primary Reading Test, Type 2, Word, Phrase, and Sentence Reading	.33
Metropolitan Readiness Test, Information	.32
Gates Reading Diagnosis Tests, IX, 11, Name Lower-Case Letters	30
Gates Primary Reading Test, Type 1, Word Recognition	29
Total number of errors	29
Teacher's ranking in reading ability, May, 1934	.27
Gates Primary Reading Test, Type 3, Reading of Directions	27
Gates Reading Diagnosis Tests, X, 2, Recognition of Letter Sounds	.27

---

* This test was administered as a memory span test of syllables

TABLE I—*Continued*

Measure Correlated	Correlation with Vocabulary Tests
Stone and *Grover Classification Test for Beginners in* Reading, Part II	.26
Healy Picture Completion Test, II	.22
Gates Reading Diagnosis Tests, IX, 10, Name Capital Letters	.18
Developmental index	.13
Gates Reading Diagnosis Tests, X, 1, Recognition of Blended Letter Sounds	.06
Healy-Fernald Mare and Foal Test, Time	.04
Chronological age	.03
Perseveration (Maller-Elkin Attention Test)	.03
Nutrition	.02
Height	.01
Perception, visual	.00
Healy-Fernald Mare and Foal Test, Errors	.00
Reversals, visual perception	−.01
Gates Reading Diagnosis Tests, XIII, 3, (Adapted) Write Capitals, Small Letters, and Digits	−.02
Weight	−.06
Personal traits	−.10
Seguin-Witmer-Sylvester Form Board, Time	−.11
Personality rating	−.13
Grip	−.16
Motor co-ordination	−.32
Reversals, auditory perception	−.36
Undesirable behavior traits	−.38
Average	.20

the correlations is from −.38 to +.61. Ten correlations are negative; thirty-six, positive. The average of the correlations is .20.

Table II shows correlations by certain groupings of measures. The five correlations between vocabulary and reading tests average .31; the thirteen correlations between vocabulary and letter tests average .32; the thirteen correlations between vocabulary and mental tests average .31; the nine correlations between vocabulary and psychophysical measures average −.04; and the six correlations between vocabulary and personality measures average −.12.

TABLE II

CORRELATIONS OF TOTAL RESULTS ON VOCABULARY TESTS WITH OTHER TYPES OF MEASURES

Measure Correlated	Correlation with Vocabulary Tests
Reading tests:	
Gates Primary Reading Test:	
Type 1, Word Recognition	.29
Type 2, Word, Phrase, and Sentence Reading	.33
Type 3, Reading of Directions	.27
Teacher's ranking in reading ability, November, 1933, prediction	.40
Teacher's ranking in reading ability, May, 1934	.27
Average	31
Range	+.40 to +.27
Letter tests:	
Gates Reading Diagnosis Tests:	
VIII, 2, Word Recognition, Visual Presentation	.49
IX, 9, [Give] Letter Sounds	44
IX, 10, Name Capital Letters	18
IX, 11, Name Lower-Case Letters	30
X, 1, Recognition of Blended Letter Sounds	.06
X, 2, Recognition of Letter Sounds	.27
X, 3 and 4, Give Initial and Final Sounds	.54
X, Total, Auditory Perception Techniques	.46
XI, 2, Distinguish Words	.45
XIII, 1 and 2, Write Words	37
XIII, 3, Write Letters	37
XIII, 3 (Adapted), Write Capitals, Small Letters, and Digits	− 02
Stone and Grover Classification Test for Beginners in Reading, Part II	.26
Average	32
Range	+ 54 to −.02
Mental tests:	
Gates Reading Diagnosis Tests:	
XI, 1, Repeat Nonsense Words*	.55
XV, 3, Memory Span, Nonsense Syllables	34

*This test was administered as a memory-span test of syllables

TABLE II—*Continued*

Measure Correlated	Correlation with Vocabulary Tests
Mental tests—*continued:*	
Metropolitan Readiness Test:	
Numbers	.38
Information	.32
Van Wagenen Reading Readiness Tests:	
Range of Information	.39
Perception of Relations	.61
Memory Span for Ideas	53
Healy Picture Completion Test, II	.22
Healy-Fernald Mare and Foal Test, Time	.04
Healy-Fernald Mare and Foal Test, Errors	.00
Seguin-Witmer-Sylvester Form Board, Time	−.11
Mental age	41
Intelligence quotient	39
Average	31
Range	+ 61 to −.11
Psychophysical measures:	
Chronological age	03
Developmental index	.13
Grip	−.16
Height	.01
Motor co-ordination	−.32
Nutrition	02
Perception, visual	.00
Perseveration (Maller-Elkin Attention Test)	.03
Weight	− 06
Average	−.04
Range	+.13 to −.32
Personality measures:	
Personal traits	−.10
Personality rating	−.13
Reversals, auditory perception	−.36
Reversals, visual perception	−.01
Total number of errors	.29
Undesirable behavior traits	−.38
Average	−.12
Range	+.29 to −.38

It should be remembered that many other measures in these five groupings of tests were made besides those used in computing the averages given in Table II. The correlations of these other measures with the vocabulary tests were not computed because the "finder" device indicated that they would be low. It appears, therefore, that the averages given are higher than would have been obtained had all the correlations concerned been found and used. For instance, fourteen reading tests were given, but only five correlations with vocabulary were used. If the correlations for the other nine had been computed, the average for the fourteen reading tests would probably have been lower than .31.

TABLE III

AVERAGE CORRELATIONS OF A GROUP OF READING-ACHIEVEMENT TESTS WITH VARIOUS PSYCHOLOGICAL MEASURES

Measure Correlated	Correlation with Reading Tests
Mental age (Stanford-Binet)	51
Memory span (averages)	.42
Intelligence quotient (Stanford-Binet)	.33
Vocabulary (composite)	.31
Performance tests (averages)	.30
Perseveration (Maller-Elkin Attention Test)	.23
Perception (an original test)	.22

Table III shows average correlations of some individual measures and some groupings of measures with reading-achievement tests, which were found in the data of the complete study and which are interesting for purposes of comparison.

CONCLUSION

It would seem that, for these first-grade children, there were no significant relations between vocabulary knowledge and reading or between vocabulary knowledge and other abilities.

SELECTED REFERENCES ON PUBLIC-SCHOOL ADMINISTRATION. II

WILLIAM C. REAVIS AND NELSON B. HENRY
University of Chicago

The January number of the *Elementary School Journal* presented selected references on general administration, state school administration, city school administration, and supervision. The references presented in this article are concerned with teaching staff, school finance, business management, and public relations. The period covered in the selection of the references is November 1, 1935, to October 31, 1936.

TEACHING STAFF[1]

50. ALTSTETTER, M. L. "Do Extra Tasks Add an Extra Day to the Teacher's Week?" *Nation's Schools*, XVI (December, 1935), 35–36.

    Notes trends in educational practices which are imposing additional demands upon the teacher's time

51. BALDWIN, ROBERT D. "Professional Salary Schedules for Teachers," *American School Board Journal*, XCII (June, 1936), 26–27; XCIII (July, 1936), 19–21.

    Considers data pertaining to salary schedules in West Virginia and enunciates principles that apply to every city or state.

52. BENNETT, H. ARNOLD, "The Loyalty Laws—A Pragmatic View," *School Review*, XLIV (May, 1936), 337–47

    Since twenty-two states have enacted loyalty laws, it is necessary to determine on a rational basis the principles at issue in teacher-oath legislation The author of this article discusses four such principles

53. CALIFORNIA STATE DEPARTMENT OF EDUCATION. *Laws and Regulations Governing the Retirement of Teachers*. Department of Education Bulletin No. 3. Sacramento, California: State Department of Education, 1936. Pp. vi+32.

    Contains provisions of the school code (including recent changes) with respect to teacher retirement and the resulting modifications in rules and regulations of the administrative board.

---

[1] See also Item 573 (Simon) in the list of selected references appearing in the November, 1936, number of the *School Review*

54. CHAMBERS, M. M. "Taking Tenure to Court," *Nation's Schools*, XVII (May, 1936), 31–32.

A report of rulings of the courts in several important cases in the enforcement of teacher-tenure laws.

55. CHAMBERS, M. M. "Enforced Celibacy in Schools," *Nation's Schools*, XVIII (August, 1936), 31–32.

A report of conflicting views as evidenced by court opinions with reference to the employment of married women as teachers

56. CROSS, HENRY A. "Democratic Technique and the Inglewood Salary Policy," *American School Board Journal*, XCII (February, 1936), 28–30, 72.

Discusses eight factors that must operate freely and fully in the preparation of a salary schedule if it is to be mutually acceptable to all groups concerned

57 DOUGLASS, HARL R., and TAYLOR, WILLIAM. "Light Loads and Heavy," *Nation's Schools*, XVIII (August, 1936), 35–37.

Report of an investigation of the teaching load in Montana high schools in 1933–34.

58. EVENDEN, E. S. "Are Teachers Educated?" *Nation's Schools*, XVII (March, 1936), 39–41.

Some interesting facts taken from the reports of the National Survey of the Education of Teachers are interpreted in the light of present conditions in the schools.

59. *A Handbook on Teacher Tenure.* Research Bulletin of the National Education Association, Vol. XIV, No. 4. Washington: Research Division of the National Education Association, 1936. Pp. 165–96.

Report of the various actions of the National Education Association and a summary of the legal basis of teacher tenure in the United States. Also a brief memorandum regarding teacher tenure in foreign countries.

60. HERDA, F. J. "Some Aspects of the Relative Instructional Efficiency of Men and Women Teachers," *Journal of Educational Research*, XXIX (November, 1935), 196–203.

Report of a study of the judgments of high-school pupils and of school superintendents with reference to the efficiency of men and women as teachers. Also compares the success of pupils in the classes taught by women with that of classes taught by men, these ratings being based on the results of the Minnesota state examinations.

61. NATIONAL EDUCATION ASSOCIATION, COMMITTEE ON TENURE. *Court Decisions on Teacher Tenure in 1935.* Washington: National Education Association, 1936. Pp. 48.

Surveys the court decisions on teacher tenure in 1935, bringing up to date the report made in June, 1935.

62. NELSON, E. H. "Planning for Retirement," *Journal of the National Education Association*, XXV (May, 1936), 145.

    A suggestive discussion of the attitude of teachers toward compulsory retirement

63. *The Preparation of Teachers' Salary Schedules:* Part I, Administrative and Fact-finding Procedures, pp. 1–48; Part II, Drafting the Schedule, pp. 49–100. Research Bulletin of the National Education Association, Vol. XIV, Nos. 1 and 2. Washington: Research Division of the National Education Association, 1936.

    Part I presents issues that must be met by persons responsible for the drafting of salary schedules for teachers in city school systems. Part II deals with administrative and statistical procedures in the preparing of salary schedules in city school systems.

64. *Teacher Retirement Legislation for Kentucky.* Bulletin of the Bureau of School Service, Vol. IX, No. 1. Lexington, Kentucky: College of Education, University of Kentucky, 1936. Pp. 106.

    Presents the factual and theoretical basis upon which sound retirement legislation must be based and outlines a proposed retirement law for Kentucky.

65. THRELKELD, A. L. "Cumulative Sick-Leave Plan Is Successful," *Nation's Schools*, XVII (January, 1936), 30.

    A valuable statistical report and interpretation of the Denver sick-leave plan.

66. TOWNSEND, M. ERNEST. "Supplying Teachers for Young America," *Journal of the National Education Association*, XXV (May, 1936), 143–44.

    An interesting discussion of the requirements of the teaching profession from the point of view of the selection and training of recruits.

SCHOOL FINANCE

67. CHAMBERS, M. M. "Progress in State School Finance," *Nation's Schools*, XVI (November, 1935), 37–38.

    A brief review of significant legislation during 1935 in representative states.

68. CHISM, LESLIE L. *The Economic Ability of the States To Finance Public Schools.* Teachers College Contributions to Education, No. 669. New York: Teachers College, Columbia University, 1936. Pp. vi+170.

    A comparative study of the ability of the various states to support their schools if a model tax system should be adopted by all the states.

69. CHISM, LESLIE L. "Effect of the Retail Sales Tax on the Relative Ability of the States To Support Education: A Study in Federal Relations," *Journal of Educational Research*, XXX (September, 1936), 44–46

    An analysis which indicates that the use of the retail sales tax produces a varying effect on the measures of the ability to support schools in different states

70. CHISM, LESLIE L. "Let's Talk about Taxes," *Nation's Schools*, XVIII (September, 1936), 27–29.

A brief summary of an extensive investigation comparing the returns from present sources of tax revenue with the yield of a model tax system in different states.

71. COFFMAN, LOTUS D. "Federal Support and Local Responsibility for Education," *Official Report of the Department of Superintendence, 1936*, pp. 89–97. Washington: Department of Superintendence of the National Education Association, 1936.

Advocates a program of federal aid in line with the recommendations of the National Advisory Committee on Education

72. COVERT, TIMON. "Financial Situation of the Public Schools," *School Life*, XXI (June, 1936), 283–84.

Brief report on closed schools and expenditures for schools in 1935–36 in thirty-nine states

73. COVERT, TIMON. "State School Support Plans," *School Life*, XXII (October, 1936), 57–58, 60

Detailed statement of state-aid programs as defined by recent legislation in California and Ohio.

74. *The Efforts of the States To Support Education.* Research Bulletin of the National Education Association, Vol XIV, No. 3. Washington: Research Division of the National Education Association, 1936. Pp. 105–63.

A comparative study of measures of the ability of the states to support their public-school systems

75. GIVENS, WILLARD E. "Equal Opportunity for Children," *Journal of the National Education Association*, XXV (September, 1936), 169.

A brief summary of the proposals for federal aid introduced at the second session of the Seventy-fourth Congress.

76. JUDD, CHARLES H. "Federal Support of Public Education," *Elementary School Journal*, XXXVI (March, 1936), 497–512. (Also in *Official Report of the Department of Superintendence, 1936*, pp. 97–109. Washington: Department of Superintendence of the National Education Association, 1936.)

A critical evaluation of current proposals with respect to federal aid for schools The author advocates a program of experimentation with appropriations of $50,000,000 or $75,000,000 to be administered by a commission with authority to impose certain standards upon school systems which are to be the beneficiaries of federal aid

77. JUDD, CHARLES H., COFFMAN, L. D., and MORT, PAUL R. "Three Views on Federal Aid to Schools," *Nation's Schools*, XVII (March, 1936), 25–27.

Digests of the points of view of three leaders in education who have taken prominent parts in the discussion of various proposals pertaining to federal participation in school support.

78. MORT, PAUL R. *Federal Support for Public Education.* New York: Teachers College, Columbia University, 1936. Pp. xvi+334.

Outlines in detail a proposed program for federal aid for public schools. Advocates the distribution of federal aid on the basis of a formula which may serve to guarantee a certain degree of equalization and to avoid tendencies toward centralization of control.

79. MORT, PAUL R. "Federal Support for Public Education," *Teachers College Record*, XXXVII (April, 1936), 588–602. (Also in *Official Report of the Department of Superintendence, 1936*, pp. 76–89. Washington: Department of Superintendence of the National Education Association, 1936.)

An argument for extensive federal aid for education with suggestions on ways of avoiding anticipated dangers from increased federal aid.

80. "A Program for Federal Support of Education" (Editorial), *Elementary School Journal*, XXXVII (October, 1936), 81–88.

An important contribution to the discussion of current proposals with respect to federal aid, noting particularly the effect of ignoring the child-adult ratio in any formula for the distribution of federal aid among the states

81. PULLIAM, ROSCOE. "Economic Depletion and School Finance," *Educational Administration and Supervision*, XXII (February, 1936), 105–12.

In the light of conditions prevailing during the depression, the author argues for increased state and federal aid.

82. SEARS, JESSE B. "Our Theory of Public School Support," *School and Society*, XLIII (January 18, 1936), 73–84.

The author explains the case for increased state and federal contributions to the support of schools in terms of the democratic principle of equality of opportunity and equality of tax burden.

83. SIMPSON, ALFRED D. "Recent Experiences in Finance in New York State," *Reconstructing Education through Research*, pp. 101–11. Official Report of the American Educational Research Association, 1936. Washington: American Educational Research Association of the National Education Association, 1936.

Discusses the efforts of the state of New York in recent years to develop a sound program of school organization and financial support.

BUSINESS MANAGEMENT

84. AKERLY, H. E. "Needed Improvement in School Business Administration," *American School Board Journal*, XCI (November, 1935), 15–16, 81.

A comprehensive discussion of various phases of business administration with suggestions for needed improvement

85. BATES, HAROLD S., and STELLING, A. CARL. "Landscape Development of the School Site," *American School and University*, VIII, 170–76. New York: American School Publishing Corp., 1936

This article contains a score card for rating the landscaping of school sites.

86. CHAMBERS, M. M. "Insurance Controversies," *Nation's Schools*, XVII (March, 1936), 37–38.

An interpretation of the outcomes of certain types of litigation in relation to liability and property insurance for public-school systems.

87. DE YOUNG, CHRIS A. *Budgeting in Public Schools.* Garden City, New York: Doubleday, Doran & Co., Inc., 1936. Pp. xiv+610.

An exposition of the theory and practice of budget-making in local school systems during recent years

88. ENGELHARDT, N. L., and ENGELHARDT, FRED. *Survey Manual for the Business Administration in Public School Systems.* New York: Teachers College, Columbia University, 1936. Pp. xvi+156.

A score card of seventeen subdivisions, together with data sheets and standards for the appraisal of various phases of the business administration of local school systems

89. HOPKINSON, GEO. M. "School Floors and Floor Coverings," *American School Board Journal*, XCII (January, 1936), 29, 86.

A brief discussion of the kind of materials suitable for floors and floor coverings in the various physical units of a public school.

90. IRONS, G. E. "Population Trends Bring Building Problem," *Nation's Schools*, XVIII (August, 1936), 55–56

Discusses the problem of permanent school construction for all pupils in the light of recent studies of population trends.

91. LINN, H H "Selecting the School Custodian," *Nation's Schools*, XVII (June, 1936), 49–50.

Suggests that school custodians be selected on the basis of such characteristics as health, age, education, marital status, habits, skills, and attitudes

92. POLAKOV, WALTER N. "Billions Needed for Buildings," *Nation's Schools*, XVIII (July, 1936), 17–18.

Urges the expenditure of large sums in order to overcome the accumulated deficiency in school-building construction. Includes an estimate of the expenditure necessary for the construction and the maintenance of an adequate school plant.

93. REAGLE, FRED P. "Buying To Fit the Budget," *Nation's Schools*, XVIII (August, 1936), 43-47.

A descriptive account of purchasing procedures in the school system of Montclair, New Jersey.

94. REUSSER, W. C "Legal Phases of School Budgetary Procedure," *Reconstructing Education through Research*, pp. 88-95. Official Report of the American Educational Research Association, 1936. Washington: American Educational Research Association of the National Education Association, 1936.

Indicates the interrelation of the educational and legal aspects of school-budget laws now on the statute books and points out areas of accord and conflict

95. REUSSER, W. C. "Better Budgets," *Nation's Schools*, XVI (November, 1935), 35-36; (December, 1935), 33-34; XVII (January, 1936), 33-34.

A series of articles dealing with the legal provisions for budgeting school expenditures and the preparation and administration of the school budget

96. SCHMIDT, H. W. "Some Fundamentals of School-Building Planning," *American School Board Journal*, XCII (January, 1936), 17-19.

Practical experience in school-building planning is drawn on by the author of this article in making clear a number of situations basic to the development of a school-building program.

97. SCHMIDT, H. W. "Electrical Service in School Buildings," *American School Board Journal*, XCIII (October, 1936), 29-30, 78, 80

A practical treatment of the problems often encountered in school-building electrical services after the workmen have left the construction job and the engineer has been paid his fee.

98. WELLER, GERALD M. "Measuring the Efficiency of the Business Department of a School System," *American School Board Journal*, XCII (April, 1936), 31-32.

This article contains a list of 132 questions to be answered by the superintendent and board members in appraising the efficiency of the business department of a school system

99. WERNER, J. C. "What Price Fire Insurance!" *Nation's Schools*, XVI (December, 1935), 50-51.

Gives comparative figures showing premiums paid and losses sustained by fires in school buildings in eight states.

PUBLIC RELATIONS

100 BROWN, MARION, and MARTIN, VIBELLA. "Parents as Partners," *Journal of the National Education Association*, XXV (September, 1936), 195-97.

Report of a program of home-school co-operation developed by the staff of the University High School, Oakland, California.

101. GRAHAM, BEN G. "Some Aspects of the Public School Relations Problem," *Pennsylvania School Journal*, LXXXIV (December, 1935), 115–16, 135.

Advocates a definite, planned program of public relations for all types of schools

102. HENRY, DAVID D. "Approaching the Public—New Style," *Nation's Schools*, XVI (December, 1935), 24.

Suggests that more emphasis in school publicity should be placed on important values of education which are not measured in terms of cost.

103. HOLY, RUSSELL A. *The Relationship of City Planning to School Plant Planning* Teachers College Contributions to Education, No. 662. New York: Teachers College, Columbia University, 1935. Pp. viii+136.

Indicates the advantages of co-operation between school boards and administrative officers and city planning commissions

104. JACOBS, LELAND B. "Making Friends for the School: What an English Teacher Can Do," *Nation's Schools*, XVIII (July, 1936), 27–28.

An interesting suggestion regarding the opportunities of the teacher of English for influencing home life in the community

105. JARVIS, E D. "Campaigning for a School-Bond Issue," *American School Board Journal*, XCII (January, 1936), 21–23.

The author of this article attempts to set forth in sequential order the major tasks encountered by an administrative officer in fostering a building program in a small town.

106. LOMBARD, ELLEN C. "Parents and the High-School Faculty," *School Life*, XXII (September, 1936), 25–26.

A discussion of problems pertaining to the establishment and maintenance of favorable relations between parents and teachers in the high school.

107. PARK, CHARLES B. "Institute for Parents," *Nation's Schools*, XVIII (September, 1936), 24–26.

Report of an interesting experiment in Reading, Michigan, which was designed to inform school patrons about the aims, the curriculum, and the methods of the public schools

108. SCATES, DOUGLAS E. "The School Statistician in Publicity Work," *Elementary School Journal*, XXXVII (October, 1936), 97–106.

The author advocates greater attention to publicity programs on the part of research workers in education and indicates certain opportunities for such service which are commonly overlooked

109 SHANNON, J. R. "What Laymen Know about School Administration," *Teachers College Journal*, VII (November, 1935), 11–18. Terre Haute, Indiana· Indiana State Teachers College

The data considered in this article were obtained from the administration of an objective test on important topics in school administration to six groups of laymen.

110. SPINNING, JAMES M., and AKERLY, HAROLD E. "Geared to the Intelligent Lay Mind," *Nation's Schools*, XVII (June, 1936), 27–29.

An interesting account of the procedure followed in the presentation of the school budget to the public in Rochester, New York.

111. STUDEBAKER, J. W. *Plain Talk.* Washington. National Home Library Foundation, 1936. Pp. x+166.

A discussion of fundamental principles underlying the author's advocacy of widespread extension of such a program of public forums as was inaugurated at Des Moines under his direction.

112 STUDEBAKER, J. W. "Education for Democracy," *Nation's Schools*, XVII (March, 1936), 23–24.

Urges that teaching be more definitely related to vital questions of the day, that the educative processes be planned for the community as a whole, and that this community program include civic education for the vast majority of adults.

113. THOMAS, EDSON G. "A School-Board Member's View of School Public Relations," *American School Board Journal*, XCII (April, 1936), 16.

The author advises that school-board members give more time to the study of questions of educational significance and less time to the problems of business management.

Educational Writings

REVIEWS AND BOOK NOTES

A scientific approach to an old problem.—Three of the nine chapters of this book[1] are reports of investigations of the co-operating authors. Tyler's study shows "that memorization of facts [by college students] frequently fails to result in the development of higher mental processes" (p. 17). Breslich submits evidence that one of the reasons for the large number of failures in high-school algebra is the carrying-over of bad mental habits from the study of arithmetic. McCallister analyzes commonly used high-school textbooks in natural science and finds them deficient in means of stimulating thought. In the remaining chapters Judd uses all this and other factual material to demonstrate the thesis of the book, which is well expressed in the title.

Many recent writers have criticized sharply the aims and the results of the schools at all levels of instruction. If individuals trained in public schools and higher institutions of learning are not equipped with capacity for self-reliance, initiative, and insight, it is largely because no more than halfhearted lip service has been paid to the belief that the purpose of education is to train students to think. The schools have never lost the influence of an early tradition which regarded the major duty of education to be that of making the mind a storehouse of facts and of training pupils by repetition to perform useful habits. At the same time they have been widely influenced in recent years by a theory of learning which has supported this traditional tendency to formalism. Theories of learning which begin with the reflex, abstractly and mechanically conceived, and proceed to explain all behavior in terms of quantitative increase of such reflexes are held by Judd to be contrary to the facts both of ordinary experience and scientific investigation. Such theories have oversimplified the nature of learning and have fallen into the error of identifying the later stages of a genetic process with its beginnings.

That the elementary school is not without resources for the training of higher mental processes is made evident by two chapters of the book in which a somewhat detailed outline is given of what is involved in the learning of language and number. Children's use of language begins with nouns, and their difficulties as language develops are largely in connection with relational thinking. Relational words are used but in such a way that it is evident that the child is not making the complete mental synthesis necessary for such thinking. Under such conditions the learning may take the form of pure verbalism—a form of pseudo learning. Thinking in terms of numbers demands analysis and abstraction. The steps taken by the child from the stage at which he begins to distinguish objects as individual objects up to the time when numbers are known in the multitudinous relationships that appear in arithmetic are described. At all points these steps demand the use of higher mental processes than mere memorization and habit formation.

---

[1] Charles Hubbard Judd, with the co-operation of Ernst R. Breslich, J. M McCallister, and Ralph W Tyler, *Education as Cultivation of the Higher Mental Processes*. New York: Macmillan Co., 1936. Pp. viii+206 $2.00.

The final chapter of the book applies the principles derived from the earlier studies to a number of outstanding issues in present educational thought. Everyone interested in keeping himself abreast of the times with regard to such issues will wish to know why the author cannot go all the way with the "progressive" education movement, although he recognizes it as an ally in its opposition to formalism. In the final chapter also will be found an appraisal of new-type examinations which every superintendent, principal, and teacher should "read, mark, and inwardly digest." What are the inherent psychological difficulties of both the word and the sentence methods in teaching reading to beginners? What can be done to save education at its higher levels from the inroads of those who are incapable of thinking? These and many other subsidiary problems are attacked with the insight and the vigorous style which characterize Professor Judd's work.

E. H. CAMERON

UNIVERSITY OF ILLINOIS

Teaching as a career.—A common practice in teacher-training institutions is to give prospective teachers an introductory course in education. To meet the need of a textbook for this purpose, books with varying titles have come from the presses. The captions on a few of these publications are: "An Introduction to High School Teaching," "Introduction to Education," "An Introduction to the Study of Education," "An Introduction to Education and the Teaching Process," "An Orientation Course in Education," "The American School System," "An Introduction to the Principles of Teaching," and "An Introduction to Teaching and Learning." Roughly, the various introductory textbooks on education include (1) a discussion of educational systems in our own country and in foreign countries both as they exist at present and as they have existed in the past, (2) a discussion of classroom instruction, or (3) a combination of these two types of discussion. The treatises that might be classified under the first type have usually borne a title something like "An Introduction to Education"; those belonging under the second type have generally been termed "An Introduction to Teaching." Recently a book[1] has appeared under the title *An Intro-*

---

[1] Charles W. Knudsen and Lucius O McAfee, *An Introduction to Teaching* Garden City, New York: Doubleday, Doran & Co., Inc., 1936. Pp. xvi+424. $2.00.

duction to Teaching which cannot well be classified under any of the three categories suggested. Instead, its contents appear to suggest a fourth classification, namely, teaching as a career.

The authors of the recent publication treat questions such as the following: What kinds of persons enter teaching? What kinds of tasks do teachers perform and how difficult are these tasks? Are the salaries attractive? Do teachers receive additional compensations? What are the possibilities for attaining positions of importance in the profession? Can the teacher expect security of tenure? To what extent does the supply of teachers exceed the demand? What intellectual or personal qualities does teaching require? How should a person go about preparing to teach? What standards of preparation set by states, local school systems, or teacher-training institutions must be met? How much training in service is given to, or expected of, a teacher? How should one proceed in obtaining a teaching position? What professional ethics should be observed? What obligations do educators have toward professional organizations?

The authors of the book under consideration have succeeded well in comprehensively pointing out the advantages and the disadvantages, as well as the responsibilities, of teaching as a career. The authors do not engage in idle opinions but throughout the volume document their statements with copious statistics. Consequently, they lean heavily on such sources as United States Office of Education Bulletins, Research Bulletins of the National Education Association, findings of the National Survey of Secondary Education, reports included in the National Survey of the Education of Teachers, and studies appearing in educational periodicals. The fact-presenting nature of the volume may be illustrated by the following quotation.

> About half the states require two years of preparation for the lowest grade certificate issued, and all the states require this much preparation for the highest grade elementary certificate. Twelve states require more than two years for their lowest grade certificate, and of this group, four states require four years of preparation. Four years of college is the standard requirement for a high-school certificate; only two states will accept less, and only three states require more [pp. 270–71]

The reviewer does not desire to intimate that the entire volume is composed of such data as those which appear in the quotation above. Yet he wishes to convey the impression that the book, because of its abundance of facts, will probably prove uninteresting to a student. Under a skilful teacher, however, it should serve as a most useful source of reference. Since students preparing to teach ordinarily find teaching positions in the state in which they are given training, it is probably more important that they learn primarily about teacher supply and demand, standards of preparation, or codes of ethics characterizing the situation in their own state and only secondarily about these matters as they exist in other sections of the country or in the country as a whole.

The book has been well edited. Notwithstanding, some lack of care is evident. On pages 402–3 is the statement that the yearbooks of the National Society for the Study of Education "consist of two parts," and in Table XXVIII on pages 256–57 it appears that in two states a greater number of years of education beyond high-school graduation is required for attaining the lowest grade of elementary-school certificate than is necessary to secure the highest grade.

The book is a decidedly worth-while contribution to the rapidly accumulating literature designed to introduce the field of education to a person contemplating entering the profession of teaching. Nevertheless, as one notes what these two educators contend should constitute a beginning course in teaching and then compares their convictions with those of previous writers, one cannot help reflecting not only that there is sad variance among educators on this point but also that some effort at agreement should be attempted.

HERBERT T. OLANDER

UNIVERSITY OF PITTSBURGH

Measuring the ability of states to support public education.—With the strong appeal for federal aid to finance public education in the several states comes the problem of determining relative needs and abilities In the attempt to solve this problem various investigators have heretofore proceeded on the assumption that wealth and income are reliable measures of the economic power of a state. Believing that wealth and income represent economic ability to finance schools only insofar as these measures may be converted into tax revenue, the author of a recent study of the question[1] has applied and described a new technique.

The first major step of the study was to measure the relative tax resources of the states which would result from the application of a uniform system of state and local taxation based on the 1933 Model Tax Plan of the National Tax Association. The Model Tax Plan recommends only three major taxes, namely, a personal income tax, a tax on tangible property, and a business tax. The investigator thought it desirable to include several supplementary taxes in his devised structure of a uniform tax system. Therefore, guided by the advice of "taxation authorities," he added to the list a tax on motor fuel, a motor vehicle license tax, and an inheritance tax. Since the sales tax is at present widely administered but is generally considered an undesirable tax, the author presented data with and without the inclusion of a sales tax.

After the amount of tax revenue which each state would have received by application of the devised tax system was computed, the second major task of the study was to determine that portion of the total potential tax revenue which should be devoted to the support of public education. With considerable reluctance the investigator adopted average practice for the period 1922–32 as a basis of determining the percentage of total revenue which should be allocated to the support of public education. The amounts were studied in relation to several measures of educational need, including that recently developed by Mort. Indices of relative ability were then determined "by using the total number of dollars of potential ability behind each unit of educational need in the poorest state as a base of 1.00, and by dividing similar data for the various states by this amount" (p 143).

---

[1] Leslie L. Chism, *The Economic Ability of the States To Finance Public Schools:* The Ability of the Various States To Raise Tax Revenue under a System of Taxation Based on the Model Plan of State and Local Taxation, with Special Reference to the Relative Ability of the States To Support Education Teachers College Contributions to Education, No. 669. New York: Teachers College, Columbia University, 1936. Pp. vi+170. $1.85.

Application of three measures of educational need revealed that Nevada ranks first and Mississippi last in the ability of states to support education The use of Mort's measure of educational need indicated that the variation in relative ability during the period 1922–32 ranged from 1.00 to 6.14. When educational need was measured by average daily attendance, the range was 1.00 to 7.66. The range was calculated to be 1.00 to 9.12 when the population of five to seventeen years was used as an index of educational need. When a 2 per cent retail sales tax was included in the calculations, a slight increase was shown in the range of relative ability to support education.

The study represents a meticulous piece of work. The organization of the report is effective, and the book is well written. Forty tables, many of which are several pages long, are indicative of the great amount of statistical work involved in the study. Although the findings do not differ materially from those of earlier studies, more confidence may be placed in these results because of the better technique employed. Measuring the relative economic power of states on the basis of an authoritative tax plan is perhaps more reliable than any other method previously used.

At several points the validity of certain data may be challenged on the basis of methods employed. Even the author takes cognizance of many weaknesses inherent in his investigation and cautions the reader in the interpretation of results obtained. In fact, references are made so frequently to questionable data that the reader may become skeptical regarding the validity of certain findings.

E. C. Bolmeier

Difficulties in the early stages of reading.—Increasing attention at all levels of intellectual progress to pupils who encounter difficulties in reading indicates the desirability of critical appraisal of teaching procedures in the early stages of reading. The large number of failures in reading in the first three grades in some schools demonstrates the ineffectiveness of teaching in these grades. Case studies in higher grades frequently reveal histories of reading difficulties which originated in the lower grades and which have continued uncorrected even in the secondary school. Although the need for remedial and corrective teaching at all levels is likely to continue, proper emphasis on preventive procedures in the lower grades may reduce significantly the need for remedial instruction later. Remedial teaching is now an established practice in the lower grades of many school systems, but preventive teaching is not receiving adequate attention. A new book[1] which attempts to appraise procedures for overcoming reading difficulties in the lower grades and which shifts the emphasis from remedial to preventive teaching contributes a valuable point of view to the literature on the teaching of reading.

---

[1] Emmett Albert Betts, *The Prevention and Correction of Reading Difficulties.* Evanston, Illinois· Row, Peterson & Co., 1936. Pp xiv+402. $2.00

The book, although based on reports of research findings, is more than a mere summary of reports because it also interprets and evaluates the results of research. Some of the findings have been subjected to appraisal in the author's reading clinic; others are evaluated on the basis of the author's educational experience.

The book consists of sixteen chapters. Chapter i presents the problem under the title "Points of View on Retardation." Chapter ii contains descriptions of the elements of a modern reading program. These two chapters furnish a background for an understanding of the analyses and discussions which follow. Chapters iii–xii deal with influences affecting progress in reading, such as factors underlying reading difficulties, relation of reading to growth, analysis of reading difficulties, hand and eye preferences, eye-movements, the work of the eyes, the mechanics of reading materials, hearing, vocabulary, and emotional tendencies. Chapters xiii and xiv propose programs of prevention and correction based on the principles presented in the preceding chapters. Chapter xv describes the administrative organization and equipment of a reading clinic Chapter xvi contains a concise summary of the entire book. Finally, a series of eight appendixes present descriptions of tests and other equipment useful in diagnostic procedures.

The emphasis on prevention as contrasted with correction is the distinguishing characteristic of the book. To prevent as well as to correct difficulties in the early stages of reading is certainly a desirable attack on the problem of reading difficulties As a correlate of prevention much emphasis is given to reading readiness and its probable influence on progress in reading in the initial stages.

The book is addressed primarily to the experienced teacher, who will find in it a stimulus to self-appraisal and a challenge to improve teaching practices. The teacher engaged in remedial work will gain from it numerous practical suggestions for diagnostic and corrective teaching. It should be valuable also as a supplement to courses in the teaching of reading and in kindergarten-primary methods in teacher-training institutions

J M McCallister

Herzl City Junior College
Chicago, Illinois

Guidance for the teacher of remedial reading in upper grades —For some time teachers, principals, and supervisors have been mildly interested in the problem of remedial reading in junior and senior high schools. Recently, concerted action to overcome the reading deficiencies of pupils in the upper elementary grades and the high school has been taken in various parts of the country. To persons interested in this field of endeavor the book which is here subject to review[1] will be suggestive and helpful. This book will be useful to college and university classes studying the problem and will serve as a convenient guide to supervisors and teachers in service

The book is arranged in four parts and contains sixteen chapters dealing with the following subjects: the amount and significance of reading deficiency at the upper levels, the nature of the reading process, methods appropriate for diagnosis and treatment of reading disorders, guiding reading activities in the study of content subjects, and the administration of a reading program in the junior and senior high schools. Especially significant is Part III. This section deals with the place of reading in the content subjects and gives many suggestions which should help the teacher of history, science, literature, and other subjects to realize that he has a responsibility for guiding pupils in reading those subjects effectively and for discovering and correcting the pupils' reading deficiencies in those fields

Remedial and Corrective Instruction in Reading is well organized and is written in a simple and effective style. As the Editors' Introduction indicates, the author of this book has been successful in his attempt to make available for teacher, principal, and supervisor a simple and readable manual that translates into terms understandable to the inexpert reader the scientific research which makes possible diagnosis and remedial instruction. This accomplishment is a distinct service to the teaching profession.

The book suffers, perhaps, from the attempt to oversimplify a complex subject and is not, therefore, altogether adequate in its treatment of such a complex problem as diagnosis of reading difficulty. Too much space is devoted to case-study data without adequate development of the case-study method. The treatment of the causes of reading difficulties is also inadequate.

In spite of the limitations resulting from the attempt to treat a difficult subject in a somewhat limited space, this book will serve as a useful and helpful introduction to diagnostic and remedial teaching in the upper grades and in high school. The book will, it is hoped, bring this important problem to the attention of many teachers, principals, and supervisors and start them on their way toward effective remedial and corrective instruction in reading at the high-school level.

G. A. YOAKAM

UNIVERSITY OF PITTSBURGH

Realistic textbooks in reading.—Primary teachers everywhere are constantly searching for reading materials which will meet the needs and interests of the beginning groups. They want books which will give children delightful experiences and gradually develop joy and skill in reading. They want material easy enough so that the young learners will early feel power and never be confronted with a sense of despair and discouragement.

---

[1] James M. McCallister, *Remedial and Corrective Instruction in Reading.* A Program for the Upper Grades and High School. New York. D Appleton-Century Co., Inc , 1936. Pp. xviii+300. $2.00.

The author of the Guidance in Reading Series[1] has used every bit of scientific information available in making the books meet the standards set up for the early reading days. *Nip and Tuck*, the gay little preprimer, is made up of stories of simple, common experiences of children At the beginning each page contains two-line reading units, complete in themselves. Gradually the units increase to four lines, and, while each is a complete unit, the whole forms a continuous story about two, lively, little dogs and their friends. One-line sentences are used throughout; new words are introduced gradually and are repeated with care; there are no divided quotations; and phrasing is wisely done. The pictures, which will help the children to interpret the story, are large, full of action, and rich in color. The primer, *Bob and Judy*, takes its title from the names of the children in the first book. Here the stories center in the play of children—at home, at school, at the radio station, and at the farm. The units increase in length, but no story is more than four pages long. The author continues her care in phrasing and in the use of new vocabulary. In *Good Times Together*, the first reader, the children have more fun with toys and games, with sports, and with pets. They make kites and aeroplanes; they visit the railway station, the fire department, and the zoo; and the farm is studied again as a source of our food supply. Thus, the content is rich in social-science material, as is also the content of *Friends about Us* and *Neighbors and Helpers*, the second and the third readers.

The whole series fills a long-felt need for social-science material at the young child's level. An unusual amount of attention is given to units on communication, transportation, food, clothing, shelter, primitive people, pioneer life, and social types. These units are presented in reading material of increasing difficulty and with a change in emphasis at each grade level, the organization and the presentation showing purpose and foresight. In fascinating stories the pupils re-live many real experiences and participate vicariously in meaningful situations extending out into increasingly remote environments in time and space. No doubt the schools, libraries, and homes making use of the Guidance in Reading Series as textbooks or as supplementary readers will rejoice in this rich, well-planned content. The books may also be commended for their attractive and wisely used pictures and makeup and for the exacting attention to vocabulary difficulty, sentence length, phrasing, and other important features which must be considered when books are selected for young readers.

The author has used intelligence in her task. She has also demonstrated her ability to live and to experience with children of today. Aeroplanes, streamlined trains and automobiles, radios, and ocean liners are experiences of modern children, even the youngest pupils. The difficulties, the needs, the interests, and the joys of young readers are anticipated and planned for. The books should be of interest to all persons who are genuinely interested in helping children acquire the difficult skill of interpreting the printed page, to all who are eager to help children find inspiration and delight in wider and wider life-experiences as the world of books is opened to them.

---

[1] Grace E. Storm, Guidance in Reading Series, Child-Story Program: *Nip and Tuck*, pp. 46; *Bob and Judy*, pp vi+154; *Good Times Together*, pp. vi+154, *Friends about Us*, pp. viii+248; *Neighbors and Helpers*, pp. viii+332. Chicago: Lyons & Carnahan, 1936.

There is nothing of the classical folklore, rhyme, and jingle in Miss Storm's readers. This type of material may be missed by many teachers, although there is much debate as to its place in the reading program at this early stage. The teacher who desires may easily supplement the vivid, realistic stories of this series with these literary standbys. At the present time, when research has shown that pupils need much easy material of the realistic type, the appearance of these attractive books is opportune.

ETHEL M. WOOLHISER

NORTHERN ILLINOIS STATE TEACHERS COLLEGE
DE KALB, ILLINOIS

Reference books for children.—For more than fifty years *The Young Folks' Cyclopedia of Common Things* has been widely known and used by school people. This set of books has undergone various revisions, but its publishers have now brought out a new series of reference books[1] for the upper grades and high school which are considerably more than a revision of the earlier work. Recent additions to this series include one volume which deals with places and events and two volumes which deal with science and invention.

Places and Events is a new edition of a volume which was published in 1925 under the same title. Hundreds of new entries have been added, and the older articles have been brought down to date. In addition, the book has been reset throughout and made physically more attractive. The term "events" has been interpreted liberally to include political, commercial, and industrial movements as well as treaties, voyages, discoveries, and wars. The volume is world wide in scope.

The two volumes with the subtitle *Science and Invention* are entirely new. While the language and the vocabulary in these volumes have been carefully adapted to school children, there has been no attempt to over-popularize the material. Rather, the topics are treated in a serious manner for the pupil who needs to understand the principles underlying the various inventions and scientific discoveries which are treated. The result is a set of volumes much more useful for supplementing school activities than are some of the over-popularized books of knowledge.

Attention has been given to the historic continuity and the international aspect of science, this treatment emphasizing the importance of combining the contributions of many workers to the present knowledge concerning the topics treated. The rapid changes in the field of science make necessary frequent revisions or additions to any series of encyclopedias, and the present volume carries the treatment down to the year 1936. The illustrations, which are abundant, have apparently been carefully selected to illustrate significant features of the articles rather than simply to make an attractive collection of pictures.

---

[1] The New Champlin Cyclopedia for Young Folks. *Places and Events* (revised), edited by Lincoln Mac Veagh, pp. iv+622, $5.00. *Science and Invention*, edited by George Moreby Acklom, Vol. I, pp. iv+508; Vol. II, pp. 509–1002, the two volumes $10.00. New York: Henry Holt & Co., 1936.

The reviewer has been interested in the extent to which the articles in these books have avoided some of the earlier criticisms of encyclopedic treatment. The present works show the effects of the psychological and pedagogical discussions of this matter. The topics are treated with a noticeable richness of concrete detail which has been conspicuously absent in many reference works. The concrete illustrations throughout the books add a great deal of vividness, which will undoubtedly enhance the books' interest for children Textbooks have been often criticized on the ground that they read like encyclopedias. Some of the articles in these books would serve as excellent models for writers of textbooks. The volumes will be of interest to committees in charge of school libraries both for children in the upper grades and for pupils in high school.

G. T. BUSWELL

CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY AND PRACTICE

ANDRUS, RUTH, and ASSOCIATES. *Curriculum Guides:* For Teachers of Children from Two to Six Years of Age New York: Reynal & Hitchcock, 1936 Pp. viii+300. $2 50.

DAVIS, BENJAMIN FRANKLIN. *A Study of Shorthand Teaching;* Comparison of Outcomes in the Learning of Shorthand Effected by Differences in Teaching Methodology. Teachers College Contributions to Education, No. 693. New York: Teachers College, Columbia University, 1936. Pp. viii+108. $1.60.

FORLANO, GEORGE *School Learning with Various Methods of Practice and Rewards.* Teachers College Contributions to Education, No. 688. New York: Teachers College, Columbia University, 1936 Pp. 114. $1 60.

GARINGER, ELMER HENRY. *The Administration of Discipline in the High School.* Teachers College Contributions to Education, No. 686. New York: Teachers College, Columbia University, 1936. Pp. viii+106. $1.60.

GRIFFEY, CARL II. *The History of Local School Control in the State of New York.* Teachers College Contributions to Education, No 683. New York. Teachers College, Columbia University, 1936. Pp. viii+136. $1.60.

GROVES, WILLIAM C. *Native Education and Culture-Contact in New Guinea:* A Scientific Approach. Australian Council for Educational Research Series, No. 46. Melbourne: Melbourne University Press, 1936. Pp. 180.

Habbe, Stephen. *Personality Adjustments of Adolescent Boys with Impaired Hearing.* Teachers College Contributions to Education, No. 697. New York: Teachers College, Columbia University, 1936. Pp. viii+86. $1.60.

Hartill, Rufus M. *Homogeneous Grouping:* As a Policy in the Elementary Schools in New York City. Teachers College Contributions to Education, No. 690. New York: Teachers College, Columbia University, 1936. Pp. viii+64. $1.60.

Heaton, Kenneth L., and Koopman, G. Robert. *A College Curriculum Based on Functional Needs of Students:* An Experiment with the General Curriculum at Central State Teachers College, Mount Pleasant, Michigan. Chicago: University of Chicago Press, 1936. Pp. x+158. $2.00

Kent, Druzilla Crary. *A Study of the Results of Planning for Home Economics Education in the Southern States:* As Organized under the National Acts for Vocational Education. Teachers College Contributions to Education, No. 689. New York: Teachers College, Columbia University, 1936. Pp. x+172. $1.85

Munkres, Alberta. *Personality Studies of Six-year-old Children in Classroom Situations.* Teachers College Contributions to Education, No. 681. New York: Teachers College, Columbia University, 1936. Pp. vi+182. $1.85

Odenweller, Arthur Leonard. *Predicting the Quality of Teaching:* The Predictive Value of Certain Traits for Effectiveness in Teaching. Teachers College Contributions to Education, No. 676. New York: Teachers College, Columbia University, 1936. Pp. xii+158. $1.60.

Readings in Educational Psychology. Edited by Charles E. Skinner. New York: Farrar & Rinehart, Inc., 1937. Pp. viii+630. $2.25

Saucier, W. A. *Introduction to Modern Views of Education.* Boston: Ginn & Co., 1937. Pp. vi+490. $2.80.

Selected References in Education 1936: Reprinted from the *School Review* and the *Elementary School Journal* for January to December, 1936. Supplementary Educational Monographs, No. 44. Chicago: Department of Education, University of Chicago, 1937. Pp. x+216. $0.90.

Thomas, Frank W., and Lang, Albert R. *Principles of Modern Education.* Boston: Houghton Mifflin Co., 1937. Pp. xvi+340. $2.25.

Torbert, J. Keith. *The Establishment of an Adult School:* A Manual of Suggestions Based on Experiences and Experiments in Maplewood, New Jersey. New York: Macmillan Co., 1936. Pp. xx+218. $1.50.

BOOKS PRIMARILY FOR ELEMENTARY-SCHOOL TEACHERS AND PUPILS

Cooper, Alice Cecilia. *Essays Then and Now.* Boston: Ginn & Co., 1937. Pp. xii+402. $1.12

Goodrich, Bessie Bacon. *The Language Program:* In Grades One and Two. New York: Charles E. Merrill Co., 1936. Pp. iv+140

HARKNESS, KENNETH M., and FORT, LYMAN M. *Youth Studies Alcohol:* A Study of the Effects of Alcohol for the Seventh, Eighth, and Ninth Grades. Chicago: Benj. H. Sanborn & Co., 1936. Pp. x+124. $0.64.

HILDRETH, GERTRUDE H. *Arithmetic Achievement Tests: Form I:* For Grades Two through Six. New York: Teachers College, Columbia University, 1936 (second edition). $0.20.

PANKEY, GEORGE E., and SACHS, H. J. *Five Thousand Useful Words:* Scientifically Chosen. Defined and Illustrated in Simple Language, Pronounced, Graduated According to Difficulty, and Grouped So as To Facilitate Their Study. Nashville, Tennessee. Southwestern Co , 1936. Pp. xii+580.

PARK, DOROTHEA. *Here Comes the Postman.* Boston. Houghton Mifflin Co., 1936. Pp. 88. $0.64

PICTURE SCRIPTS. *How To Make Marionettes:* For Fun at Home, Plays at Schools and Clubs, and Professional Performances, by Edith Flack Ackley, pp. 24; *Matilda the Old-fashioned Hen* by Elizabeth Matson, pp. 48; *Airplanes:* The Work They Do and How They Do It, pp. 24; *Along the Busy River* by Katharine Keelor; *The Picnic* by James S. Tippett, pp. 48. New York: Grosset & Dunlap, Inc , 1936.

SALISBURY, RACHEL, and LEONARD, J. PAUL. *Making Sense:* How To Say What You Mean and Understand What You Read. Chicago· Scott, Foresman & Co., 1936. Pp. viii+260. $0.60.

MATERIAL IN PAMPHLET FORM

Child Labor Facts. Department of Research and Publicity, Publication No. 369. New York: National Child Labor Committee (419 Fourth Avenue), 1937. Pp. 32.

DAWES, ROBERT GATES *Voice Recording as an Instrument of Therapy and Analysis in the Speech Correction Clinic.* Philadelphia: Temple University, 1936. Pp. 62.

History of Education and Comparative Education. Review of Educational Research, Vol VI, No. 4. Washington: American Educational Research Association of the National Education Association, 1936. Pp. 353–456.

HOLY, T. C. *Survey of the Schools of Euclid, Ohio.* Ohio State University Studies, Bureau of Educational Research Monographs, No. 22 Columbus, Ohio: Ohio State University, 1936. Pp. xii+178. $1.50.

HOLY, T. C., and ARNOLD, W. E *Score Card for the Evaluation of Elementary-School Buildings*, pp. 10; *Score Card for the Evaluation of Junior and Senior High-School Buildings*, pp. 12. Columbus, Ohio: Ohio State University, 1936. $0.10 each.

HOLY, T. C., and ARNOLD, W. E. *Standards for the Evaluation of School Buildings.* Ohio State University Studies, Bureau of Educational Research Monographs, No. 20. Columbus, Ohio: Ohio State University, 1936. Pp. viii+80. $1.00.

KANDEL, I. L. *Examinations and Their Substitutes in the United States.* Bulletin No 28. New York: Carnegie Foundation for the Advancement of Teaching, 1936. Pp. x+184.

LAING, GRAHAM A. *Economics in a Changing World:* A Guide for Studying Economic Change and How It Affects Human Lives. Social Studies Series. Washington: American Association of University Women (1634 I Street, Northwest), 1936. Pp. 82 $0.50.

LEVY, JOHN, and ENGLISH, O. SPURGEON. *The Family Situation and the Exceptional Child.* Child Research Clinic Series, Vol. II, No. 3 (Whole No. 9). Langhorne, Pennsylvania. Child Research Clinic of the Woods Schools. Pp. 18.

MCHALE, KATHYRN, and SPEEK, FRANCES VALIANT. *Newer Aspects of Collegiate Education:* A Study Guide Education Series. Washington: American Association of University Women (1634 I Street, Northwest), 1936. Pp. 68. $0 50.

Manual on Traffic Safety for California Secondary Schools. State Department of Education Bulletin No. 8 Sacramento, California: State Department of Education, 1936. Pp. vi+84

MAY, ELIZABETH STOFFREGEN. *Government, Business, and the Individual:* A Guide for Studying Current Controversy in Economic, Political, and Social Questions. Social Studies Series. Washington: American Association of University Women (1634 I Street, Northwest), 1936. Pp 112. $0.75.

MERSEREAU, EDWARD B., DAVIS, ROBERT A., and MILLS, HUBERT H. *Directed Observation and Supervised Teaching in Secondary Schools:* Principles, Observation Exercises, and Case Studies. New York: Farrar & Rinehart, Inc., 1937. Pp. vi+108. $1 00.

NEBRASKA STATE TEACHERS' ASSOCIATION. Educational Bulletin, Mimeographed Series I: No. 1, "The Elementary School Report Card" by Norma Gillett, pp. 16; No 2, "Trends in Salaries, Personnel, and Program of Nebraska Schools: 1935–36 and 1936–37," pp. 20; No. 3, "The High School Report Card" by C. H. Adee, R. G. Polster, N. F. Thorpe, G. D. Price, and Galen Saylor, pp. 20, No. 4, "Salaries of Teachers, Length of Term, and Financial Condition of Nebraska Rural Schools: 1935–36 and 1936–37," pp. 14; No. 5, "The Financial Support of Government in Nebraska—The Need for Study and Reform" by Galen Saylor, pp. 27. Lincoln, Nebraska: Department of Research, Nebraska State Teachers' Association (605 South Fourteenth Street), 1936. $0.10 each.

NEBRASKA STATE TEACHERS' ASSOCIATION. Teachers' Pamphlet. No. 1, "List of Selected Professional Books and Magazines Classified by Subjects, January, 1931–June, 1936," pp 16; No. 2, "The Unicameral Legislature: A Suggested Unit of Study" by Galen Saylor, pp. 10; No. 3, "Teaching the Controversial Issues: A Teaching Demonstration" by Roy W. Hatch, pp. 14, "Social Security Legislation: A Suggested Unit of Study" by Galen Saylor, pp.

24. Lincoln, Nebraska: Department of Research, Nebraska State Teachers' Association (605 South Fourteenth Street), 1936. $0.10 each.

NELSON, FLORENCE, and COTTRELL, H. LOUISE. *Safety through the Year:* An Activity-Text-Workbook for Intermediate Grades. New York: McGraw-Hill Book Co., Inc., 1937. Pp. 96. $0.52.

"School Legislation": Part I, A Guide to Recent Publications of the National Education Association, pp. 10 (mimeographed); Part II, A Guide to Recent Publications of the United States Office of Education, pp. 6 (mimeographed). Compiled by the Research Division of the National Education Association. Washington: National Education Association, 1936.

"State Legislative Programs, 1937." Compiled by the Research Division of the National Education Association. Washington: National Education Association, 1936. Pp. 18 (mimeographed).

WARE, CAROLINE E. *The Modern Economy in Action:* A Guide for Studying the Relation Between Our Economic Thinking and Current Economic Facts. Social Studies Series. Washington: American Association of University Women (1634 I Street, Northwest), 1936. Pp. 56. $0.50.

WILLIAMS, R. C. *A Review of Iowa's Public Schools.* Research Bulletin No. 21. Des Moines, Iowa: State Department of Public Instruction, 1936. Pp. 30.

MISCELLANEOUS PUBLICATIONS

Index to Vocations. Compiled by Willodeen Price and Zelma E. Ticen. New York: H. W. Wilson Co., 1936. Pp. 106. $1.25.

THE ELEMENTARY SCHOOL JOURNAL

VOLUME XXXVII MARCH 1937 NUMBER 7

Educational News and Editorial Comment

THE CASE AGAINST CHILD LABOR

The expansion of industry in this country during the nineteenth century, especially during the last quarter of the century, was accompanied by the employment of a large percentage of the children between the ages of ten and fifteen. Beginning about 1910, however, there was a sharp decline in the employment of young persons. In that year approximately 25 per cent of the boys and 12 per cent of the girls of ten to fifteen years of age were in gainful occupations, but by 1930 gainful occupations among boys had dropped to 6.4 per cent and among girls to 2.9 per cent. There was an aggregate decline in the employment of persons in this age group from 18.4 per cent in 1910 to 4.7 per cent in 1930. Something of the magnitude of the decline of juvenile employment is indicated by the fact that in 1930, in all the major occupational groups except agriculture, persons under sixteen years of age comprised less than 1 per cent of the gainfully employed.

There are a number of very good reasons why children and youth should have been progressively excluded from gainful labor. For a number of decades we have been developing an economic structure in which it is increasingly difficult and increasingly undesirable for youth to engage in gainful employment. The fact is, modern industry is not organized for the employment of immature young persons. They cannot be safely trusted with the operation of costly and complicated machines. Seemingly there is an inherent conflict between an advancing technology and the early entrance of young persons into occupational life. Every advance in technology tends to reduce the demand for unskilled labor The complexity of the processes of industry and commerce requires increased skill and a greater degree of trained intelligence as well. Scientific investigation reveals clearly that industry and commerce have, in many instances, not only resisted the entrance of children into occupations but have even gone so far as to impose advanced and explicit educational requirements as conditions of admission.

It is not, however, the influence of technological advance alone that has delayed the entrance of youth into gainful employment. An influence of perhaps equal importance is the changing attitude which society is taking toward childhood as a period of development and adjustment. A better understanding of the meaning of infancy has made it clear that there are fundamental biological reasons why human infants require a prolonged period of growth and development. Society has come to regard the years of childhood not merely as a period of dependency but as a period for the development of the capacities of youth. It is coming to be recognized that child care is a fundamental social obligation. Society simply cannot permit its youthful members to grow up under conditions which jeopardize their physical and mental health and which prevent the development of those moral and social qualities necessary for good citizenship. Youth, moreover, must be introduced to those social institutions which are basic to civilized life, such, for example, as language, number, government, and art. They must be given, too, some measure of critical understanding of the economic, social, and political institutions of the particular society of which they are members. Finally, society must in some way prepare its youth for productive labor in an industrial system ever growing more complex, and it must direct them into types of work that will permit of their further growth and development.

The changing pattern of the population structure is still another factor which makes the employment of young children an anachronism in present-day America. The decline in the birth-rate, greatly accelerated in recent years, is reducing materially the number of children to be supported per thousand adults. If, for example, the ratio of white children under sixteen to white adults of twenty years and over had been the same in 1930 as it was in 1850, we should in 1930 have been supporting and caring for approximately 60,000,000 children instead of 33,000,000, the actual number. It is obvious that society's burden in caring for its young dependents, with regard to the sheer matter of numbers, is being materially reduced. Society, having relatively fewer young dependents to support and care for, is able to take a new attitude toward youth, to lengthen the period of their dependency, to delay their entrance into gainful occupations, and to provide them with extended and enriched educational opportunities.

It is considerations such as those enumerated in the preceding paragraphs that have led to the enactment of child-labor and compulsory school attendance legislation. Fortunately the great majority of employers, like other public-spirited citizens, are opposed to the employment of young children. In certain areas and in certain industries, however, there are employers who are willing to exploit children with as much ruthlessness as ever. The fact that most children are unemployed should not blind us to the fact that many thousands are still employed and that for them child labor is a stark reality.

In its recently published annual report the National Child Labor Committee comments as follows on the increase of child labor after the industrial codes were declared invalid:

> That child labor began a rapid comeback as soon as the provisions of the industrial codes were rendered invalid is clear from the official reports on employment certificates issued to fourteen- and fifteen-year-old children from areas in which there has been no change in the state child-labor law and for which comparable data for both years are available. In the 10 states and 98 cities in other states thus reporting to the Federal Children's Bureau, 8,400 children were granted regular employment certificates between January 1 and June 1, 1936, as compared with 3,350 for the corresponding period of 1935, when the industrial codes were in effect, an increase of 150 per cent.
>
> In the states and cities reporting on these children's occupations, manu-

facturing, mechanical, and mercantile industries absorbed more than 25 per cent of the children, as compared with only 5 per cent in 1934, when the N.R.A. was in effect.

The National Child Labor Committee determined to go back of these returns and to find out the actual conditions under which some of this growing number of children were laboring. With the limited staff available it was possible to cover only two industries, partially. First, the lumber, turpentine, and woodworking industry in southern states, and, second, that ancient stronghold of child-labor abuses, the sugar-beet industry of the Midwest

When man went into the primeval forests to hunt for game and to build his huts, he was more reasonable in the use of the gifts of Providence than in these latter days when he has learned to strip the earth naked of its woods and to plow up the soil so crudely as to leave it defenseless against wind and drought over huge areas.

Senseless as such procedures are, they are not half as hard to condone as the ruthless exploitation of young children which the committee has uncovered in the lumber and woodworking industries of the southeastern states. It is almost incredible that such conditions could exist in the year 1936, following hard upon the most striking example which this country has ever had of what can be done to remove children from most branches of industry so that they may have a fair chance at health, education, and the good things of life. Extensive visits in South Carolina and less extensive in Georgia, Alabama, Mississippi, and Louisiana from where the pine trees are tapped for their turpentine or lumber is cut for the mill, to the manufacturing plants where such products as fruit crates, potato barrels, and wooden baskets are made, have revealed a misuse of children that is as predatory in essence as anything that has gone on in this country since the days when the mills of New England one hundred years ago advertised for children to do their work.

In the areas covered little concern was found for the education of children. Many schools run on short terms or are closed when work calls In some places there is no attendance officer, and the illiteracy rates continue high. In forest districts dozens of children were found who either had attended no school for years or were struggling along in first to fourth grades—usually two to six years retarded.

In the outlying branches of the lumber industry boys of ten can be found engaged in lumber mills, pole-peeling and even logging in the swamps and sand bogs, and fourteen-year olders at jobs that tax the strength of grown men are not uncommon. The chipping and pulling of pine trees for turpentine and the hard and sticky work of gathering the turpentine are carried on largely by young workers These outlying sections are not much disturbed by inspections by state officials to see that children are not abused and that they are in school where they belong.

The dangers involved from unguarded belts and saws and defective boilers in the "grasshopper" mills scattered over the lumber territory, as well as in field operations, such as pole-peeling, are a menace to the children employed in them and to even older youths too immature for such hazardous occupations.

In all of these lumber and turpentine industries the rate of pay for the children is far below one that would make a decent living possible. A father and two young sons make less than twenty cents an hour for the three for hauling logs, dipping turpentine may bring fifty cents for a twelve-hour day, and so it goes. . . . .

A more rapid survey this summer of conditions in the sugar-beet fields of Colorado and Nebraska (the first, the leading sugar-beet state, and the second, one of the next rank) have confirmed the principal findings of a more thorough inquiry made during the summer of 1933. The conditions under which little children are being made to work in the fields at inhumanly long hours and the standards of living of their families generally have gone back to those at the low point of the depression. Quarters provided for workers and their families are wretched. The gains made under the sugar-beet adjustment contracts, entered into under the Jones-Costigan Act, have apparently been swept away.

It is again true that the great majority of children above eight years of age in the families of sugar-beet laborers in the areas visited are employed at heavy manual labor for long hours in the production of sugar-beets. The committee found a young girl of six years of age forced to work in the fields regularly every day because it was claimed she could do more work than many men. During certain rush periods and especially during the autumn when the beets are pulled out of the ground, the pressure on these children is intense, and the load of work required is an inhumanly heavy one for the immature muscles of young children, some hardly more than out of their babyhood. While harvesting is in progress, the weather is frequently cold and stormy, frost is often on the ground, and clothing, far too scant a protection at best against wind and weather, becomes wet, but childish backs and legs and cramping fingers must drive on.

Children are frequently kept out of school during harvesting in the fall. In fact, the numbers are so great in some areas that the schools are formally closed for what is ironically called a "beet vacation."

Even when laborer families use all of their children down to eight and seven years of age, the income is so low as to place the standard of living on a starvation level The result is that, while they eke out an existence of a kind during the summer months and the early fall, funds soon disappear and these laborers, producers of beet-sugar for our markets and homes, are found waiting at the door of the relief office for public support.

Thus a great industry in Colorado, Nebraska, and some other states literally pays its dividends out of the wretched hardships of children and out of living conditions for their families involving poor and unwholesome food, inadequate clothing, and almost no recreation, together with crowded and almost unbelievably bad housing and sanitary conditions.

The American people should put an end to conditions such as are described in the report from which the foregoing paragraphs are quoted. The only practical way to do it is to adopt the Child-Labor Amendment to the federal Constitution. During 1937 the legislatures of nineteen states which have not yet ratified meet in regular session. Four of these states have taken favorable action. Adoption of the amendment will require ratification by eight more. All who are convinced that nation-wide standards governing the employment of children are necessary and that public opinion in behalf of the elimination of child labor should be crystallized in legal safeguards should lend their support to the adoption of the amendment.

EDUCATION IN ENGLAND IN 1936

Education in England is undergoing a significant reorganization. Extended and enriched educational opportunities are being provided for the adolescent population; gratifying progress is being made in the establishment of nursery schools; the school medical service is being improved; more attention is being devoted to laying the foundations of healthy upbringing; and in many places the social and economic environment of children is being materially improved through the removal of slums. The following statement, quoted from the London *Times Educational Supplement*, summarizes in a general way some of the most significant changes that occurred in English education during 1936.

> In a year of momentous national events education has not been neglected. It may well happen that in days to come the past year will be regarded as one of the most important in the annals of our school system. At last we have broken away from the long-accepted belief that for the vast majority of children schooling should end at or about the age of fourteen. This belief was probably engendered by the old custom of apprenticeship, a custom which was broken, to the disadvantage of children, by the demand for child labor which accompanied the Industrial Revolution. For upwards of a century the schooling of boys and girls was subordinated to the assumed needs of factory, workshop, and mine. Cheap labor was in demand, with short schooling as an inevitable corollary.
>
> Although in some quarters there is still some opposition to extended school life for all children, the discussions of the past year have revealed a growing conviction that the modern conditions of industry and commerce make possible a raising of the school age The change is justified on both economic and educational grounds. Experience shows that industry need not suffer any permanent loss, and the educationist has for a long time been pointing out the grave risks

which attend the neglect of educational opportunity during the critical years of adolescence.

The process of reorganization on the lines of the Hadow Report has advanced greatly during the past year, and in the near future we shall have a co-ordinated scheme of grant-aided schools. At the beginning there will be nursery classes and nursery schools where local conditions make them desirable. Schools for infants will be retained, and they will lead on to junior schools or departments for pupils between the ages of seven and eleven. Following these facilities for the primary stage will come postprimary schools of various types, some making provision for pupils up to the age of fifteen, others for those who can remain to the age of sixteen or even eighteen.

These developments are made possible by the provisions of the Education Act of 1936 . . . .

The question of school examinations conducted by external examining bodies came into prominence at the beginning of the year, following an investigation based on a comparison of marks allotted to examination scripts by independent examiners and boards of examiners. The inquiry was carried out by a committee of well-known educationists, with Sir Michael Sadler as chairman, and the results were certainly disquieting, although their validity was questioned by some officials of examining boards. The evidence tended to show that the marking of examination scripts is at best an uncertain business, with far too much depending on the personal equation of the examiner.

More recently, and perhaps more profitably for the ultimate good of our school system, there has been a growth of interest in the physical welfare of children. On this question the Board of Education, the Ministry of Health, and the three branches of our armed forces are in agreement. All desire to see a great improvement in the national physique. It is desirable that they should arrive at some agreement as to how their aim may be realized. Already there have been official visits to Germany and Scandinavia for the purpose of learning what is done abroad. . . . .

A recent circular from the Board of Education (Circular 1444) gives promise of advance all along the line Nursery schools and classes are encouraged; the rate of grant for school buildings is increased from 20 per cent to 50 per cent as from January 1, 1937. School planning is under review; special places in secondary schools are to be available to an extent which will insure that no parent is called upon to pay more by way of fees than he can afford; there are to be more open-air schools; and local authorities are enjoined to make a thorough survey of their medical and dental services, giving special attention to the needs of children who suffer from defects of vision or hearing, from rheumatism, or from mental deficiency.

This circular and the Education Act of 1936 are the starting points of a new era of educational progress.

IMPROVEMENT OF EDUCATION IN ARGENTINA

A recent issue of the *Bulletin of the Pan American Union* carries the following account of the work of the National Council of Education of Argentina.

During the three-year period from May 15, 1933, to May 15, 1936, the National Council of Education of Argentina carried out a vast program of improvement of the educational facilities in the whole country. The council continued its efforts to reduce illiteracy, establishing for this purpose new schools and reorganizing the *Oficina de Obligación Escolar*, which is intrusted with the task of seeing that children of school age are given the proper educational attention. Thanks to the efforts of the council, 151,200 children who otherwise would not have been provided for were able to attend school in the capital, provinces, and territories during the above-mentioned period.

The council also took measures to solve the truancy problem, a very serious one in certain regions due to the lack of proper elementary and higher grades in existing schools. After these grades were established, school attendance increased 70 per cent.

The teaching staff of the various schools likewise received the attention of the council. The payment of teachers' salaries was brought up to date; a system of automatic promotion was established; and 5,922 new teachers were appointed for the provinces and territories.

Teaching methods were improved, and a bill on the unification of teaching for the whole country was presented to the National Congress by the Executive.

The council also endeavored to bring about a reduction of the prices of textbooks and other school material. With the co-operation of the Military Geographic Institute of Argentina, the council secured at a reduced price 5,800 maps of the Republic for distribution among the public schools. In the matter of school buildings, the council was endeavoring to obtain the necessary funds from the National Congress to repair, enlarge, and improve those which it owns at the present time and to lease or buy others where necessary and expedient. Money saved by revised leases was used to establish new schools.

A CRITICISM OF THE GEORGE-DEEN VOCATIONAL EDUCATION ACT

The George-Deen Act, which was passed by the last Congress and which will become operative July 1, 1937, authorizes a substantial increase in the federal subsidies for vocational education. Under the terms of the act, $4,000,000 is authorized to be appropriated for vocational education in agriculture, $4,000,000 for vocational education in the trades and industries, and a similar amount in home economics. In addition the act authorizes an annual appropriation of

$1,200,000 for vocational training in the distributive occupations—retailing, wholesaling, jobbing, commission buying and selling, and other merchandising occupations. An appropriation of $1,000,000 annually is also authorized for the training of teachers of vocational education in agriculture, trades and industries, and home economics.

In two respects this act is subject to serious criticism. In the first place, the method of apportionment of funds ignores completely differences in the age structure of the population in the different states. One-third of the $12,000,000 authorized to be appropriated is to be allotted to the states in the proportion that their farm population bears to the total farm population of the United States; a third in the proportion that their rural population bears to the total rural population; and a third in the proportion that their nonfarm population bears to the total nonfarm population. The whole sum authorized for vocational education in the distributive occupations is to be allotted to the states in the proportion that their total population bears to the total population of the United States. On the surface these bases of distribution may seem equitable, but the fact is that youth of high-school age, the group primarily provided for in the George-Deen Act, are very unequally distributed in relation to adults among the farm, the rural, and the nonfarm population in the different states. For example, the ratios of children of high-school age to adults in the farm population of the various states show marked variations. The number of children fourteen to seventeen years of age for each 1,000 adults of twenty to sixty-four years of age in the farm population in a selected group of states in 1930 was as follows: South Carolina, 277; North Carolina, 258; Georgia, 254; Utah, 238; Idaho, 193; Massachusetts, 168; Illinois, 167; Iowa, 165; New York, 151; New Hampshire, 139; and California, 138. There are also marked differences in the ratios of children to adults in the nonfarm population of the various states. The fact is that differentials in fertility result in marked differentials in the distribution of young persons throughout the population of the various states. If federal funds are to be used for the education of these young persons, they should be allotted to the states in terms of the young people to be educated and not in terms of total populations. There can be little doubt that the George-Deen Act favors those states in which the adult population is carrying a relatively small population of high-school age—the very states that are in least need of aid.

A second criticism of the act is that it fails to recognize in any adequate way the changes that are taking place in employment opportunity. Twelve million dollars are authorized for vocational education in agriculture, in the trades and industries, and in home economics, and only slightly more than one million is to be apportioned for vocational education in the distributive occupations. Yet for a number of years the trend of employment opportunity has been clearly away from productive to distributive and service occupations. The percentage of the gainfully employed who are engaged in the production of physical goods in agriculture, mining, and industry has been declining steadily. The percentage of the gainfully occupied who are employed in agriculture has steadily decreased since 1870. During the twenty-year period from 1910 to 1930 the number of persons engaged in agriculture decreased approximately 15 per cent. Until 1920 manufacturing and mechanical pursuits provided employment for an increasing percentage of the gainfully occupied, but during the following decade this tendency was reversed. The evidence indicates that science and technology have released fully one-fourth of the labor power of the nation from physical production and made it available for such other activities as transportation, trade, professional, and clerical work. In the face of well-established occupational trends such as these, a federal program for the promotion of vocational education which continues to emphasize training in the productive industries to the almost total neglect of trade, transportation, and service occupations seems out of touch with reality.

When he signed the act, the President indicated a belief that, before it took effect, the "whole subject should be reviewed by a disinterested group." Sometime ago, therefore, the President appointed a committee to evaluate our national experience under the existing program of vocational education and to study the relation of such training to general education and to prevailing economic and social conditions. The report of this committee will be awaited with great interest.

A COUNSELING SERVICE FOR DIRECTORS OF PUBLIC FORUMS

The following release has been made public by the United States Office of Education

A counseling service on program-planning for adult civic education in public forums is being offered by the Office of Education in connection with Federal Public Forum Projects, according to J. W. Studebaker, United States Commissioner of Education.

As a result of the operation of ten forum demonstration centers in ten states during the past five months, the Office of Education has received thousands of requests for information concerning these programs of public discussion. In order to make the demonstration of these projects of maximum value to other communities in developing programs of their own, an information service from the Office of Education in Washington will augment the activities of the local projects in making available the experience of the program.

Paul H. Sheats, director of the Chattanooga-Hamilton County Public Forum Project, has been added to the staff as a field supervisor and associate of the assistant administrator, Chester S. Williams.

The building of new schools with large auditoriums and municipal auditoriums in more than two thousand communities throughout the nation as a part of the program of the Public Works Administration has created thousands of new meeting places This has stimulated the interest of educational authorities and civic leaders in these communities in providing programs of public discussion and forums for the adults. The Office of Education is now in a position to counsel with these interested educational and civic leaders concerning practical programs of adult civic education. Careful records are being assembled on the activities of the forum demonstration projects. In addition the Office of Education has made a comprehensive survey of 431 public forums sponsored by all types of community organizations. The data and information now in the files of the Office of Education are the basis for answering numerous questions, such as probable cost, problems of management, method of scheduling speakers, visual aids, publicity, use of the radio, and many other problems involved in developing new programs of adult civic education.

In addition to the ten public forum demonstration centers which have operated programs since September, 1936, nine new demonstration centers began schedules the first of February, 1937. The nine new centers are located in Dayton, Ohio; five townships in Fairfield County (Stamford) Connecticut; Lenoir, Greene, Pitt, Wake, Wilson, Johnston, and Wayne Counties, North Carolina; Delaware County, Pennsylvania; McLennan and Falls Counties, Texas; Seattle, Washington; Atlanta, Georgia, Milwaukee, Wisconsin; Weber County, Utah.

HERE AND THERE AMONG THE SCHOOLS

From time to time the *Elementary School Journal*, under the caption "Here and There among the Schools," has published brief reports of innovating practices in the fields of administration and supervision, the curriculum, methods of instruction, community relations, and the like. The editor of the *Journal* extends to its readers an invitation to supply such information concerning their own schools or school systems. We cannot, of course, guarantee that all such materials will be noted in our issues, but all materials submitted will be carefully examined with a view to making helpful information available to others.

Problems of school maladjustment.—There is an increasing awareness among administrators and teachers of the problems of the maladjusted child, and there are developing more comprehensive and effective methods of treatment. Not so long ago, before the advent of what has been called the "statistical era," the selective and classifying process of the school quietly and effectively threw aside those pupils who failed and retained the pupils who were able to meet requirements. The application of statistical procedures, however, revealed with more or less precision the startlingly large number of maladjusted pupils, created an inquiring attitude concerning the cause of the large amount of maladjustment, and raised doubts with respect to educational aims and processes. The more recent development of mental and educational measurements called attention forcibly to individual differences in ability and in personality traits and afforded the basis of meeting individual needs. In dealing with the so-called "problem child," however, educational administration has placed chief emphasis on the mental and the intellectual phases of child development, has sought primarily to effect an adjustment to school conditions on the part of pupils whose mental equipment precluded the achievement of the regular school course. Studies of juvenile delinquency, truancy, adult crime, and the social-pathological problems of both adolescents and adults reveal, however, that any successful attack on the problems of the maladjusted must be directed to an understanding of the effects of the total environment—economic, social, intellectual, and emotional.

Recognizing the necessity of this broader type of attack, the Joint Committee on Problems of School Maladjustment in New York City has prepared, under the direction of Eugene A. Nifenecker, director of research, a volume of 215 mimeographed pages showing school background conditions, factors, trends and problems in New York from 1900 to 1934. The general purpose of the study is indicated by the following excerpt from the Introduction.

> The *Joint Committee* on Problems of Maladjustment, Truancy, Delinquency, etc., which has been functioning during the current school year, aims at . . . . a more organized and purposive program. While considering the problem in all its aspects, the committee is directing specific attention to the administration of the schools to determine those elements in school organization and procedure which may be causal factors in school maladjustment.
>
> It is recognized that the various elements of school administration, organization, and procedure are so closely interrelated and interdependent that a study of the problem in one field will inevitably involve other elements and phases In fact, it is essential, while delimiting the problem as far as possible for effective study, that all related factors and conditions be taken into account.
>
> Again it must be recognized that, while the school system only too often attempts to operate in isolation, its work has been and is very greatly conditioned by forces and factors of a social and economic nature operating in the community. Over some of these "outside" influences the school system many *times can exercise little or no control. To others, frequently it attaches too little* significance, and to many it generally responds somewhat tardily. In any comprehensive study of maladjustment problems the influence of such extra-school factors must be given due consideration.
>
> It is the aim of this report to present factual data with reference to some of the conditions, factors, and problems in the schools that have been current during the past three or four decades. A review of our local school administration will serve to show how these conditioning elements have affected the development of the school system and have in large part determined the character of its program The data will also show the varying needs and conditions in different sections of the city which cannot be adequately met by a uniformity in administrative requirements, but which call for a form of "individualized" administration.

The following topics are treated at great length: "The Problem of School Housing and Congestion," "The Problem of Racial Heterogeneity," "Some Other Socio-economic and Educational Factors and Trends." Under the last topic attention is given to illiteracy in the population, *inability to* speak English, citizenship of the foreign-born population, birth and death rates, aging population, lengthen-ing the period of schooling, changes in character of school population, and distribution of intelligence in school population.

A suggestive list of activity units.—Supervising Principal Edgar M. Finck, of Toms River, New Jersey, with the assistance of a committee of teachers, has prepared a mimeographed booklet entitled "Activity Units: How! When! Why!" Portions of the booklet are devoted to the following topics: "Definition of an Activity Unit," "Five Antagonisms Harmonized," "Twenty Reasons [for Including] Activity Units in [the] Year's Work," "Conditions Essential to the Success of an Activity Unit," "An Outline for Planning an Activity Unit," and "A Suggestive List of Activity Units" The section on possible activity units will probably be most interesting to teachers who employ this method of instruction. It contains more than a hundred suggested units, the work of each unit being described in some detail.

A study of the attitude of parents toward the conference method of reporting pupil progress.—Since 1932–33 the teacher-parent conference plan has been in operation in the Liberty School, Highland Park, Michigan. In a recent report Roy E. Robinson, principal of the school, describes the plan and presents evidence to show how parents have reacted to it as a substitute for the traditional report card. The plan is described briefly as follows:

> The Teacher-Parent Conference Plan was inaugurated in the Liberty School, Highland Park, Michigan, in the first semester of the school year 1932–33 The demand for a flexible, adaptable, and more personal form of reporting pupils' progress to parents grew out of much the same feelings on the part of the teachers and principal that are outlined in the foregoing discussion.
>
> Although offhand it seemed laborious, the Teacher-Parent Conference actually involved less total work than letter-writing . . . .
>
> The plan was based, as its name implies, on the teachers' and parents' getting together for the purpose of discussing the child's reaction to school life. The conference was to be held after the school hours of the primary children. Arrangements for the conference were made in advance by letter. The minimum number of conferences agreed upon was one per semester with the provision that the teacher would go to the home when it proved impossible to get the mother or father to come to the school
>
> No set procedure was used in the conference, the things to be discussed being left up to the judgment of the teacher. All school records were available for use where needed. Emphasis was, however, made on the child's actual rather

than relative achievement. Personality and social traits were discussed as the teacher thought best.

To put the plan in effect, the mothers of first-grade children were consulted and their approval obtained before the plan was adopted. The degree of success achieved by the plan during its first semester of operation warranted its being continued on into the succeeding half-grade, while the next group of beginners were reported according to the new plan. As the original grade continued on through the primary department, the plan "grew" with them until at this writing the entire first, second, and third grades involving over three hundred children and nine teachers are sending home no formal written reports of any kind. The information is being given to the parents entirely by the Teacher-Parent Conference Plan.

After the plan had been in operation for three years, a questionnaire was submitted to parents in an attempt to evaluate their attitudes toward the new method of reporting pupil progress. An analysis of the answers led to the following generalizations.

Most parents are aware that this special plan is in existence in the Liberty School. They do not consider its school-visitation feature a serious inconvenience to them, and all but a few manage to come to the school for the conference which lasts, according to their recollection, from ten to twenty minutes. Whether as a consequence of the plan or not, over half the parents visit the school without any special requests. The parents are equally divided as to plan preferences, report card or conference plan, when it comes to reporting how well the child does in the academic subjects of reading, writing, spelling, and arithmetic; but, when the social and personal factors are considered, they show a marked preference by voting three to one in favor of the Teacher-Parent Conference Plan

Parents who favor the report card in general for reporting children's reactions to school life take exception to their plan preference later on when they consider which plan gives them "the best understanding of school methods, subject matter, and school life in general"; while, on the other hand, those who favor the conference plan remain consistently in its favor throughout questioning.

Parents whose children have never had any experience with report cards show greater preference for the conference plan than do others.

The lower the grade, the more the parents favor the conference plan The longer their children have had contact with the plan, the better the parents like it. Fathers favor it slightly more than do mothers.

This plan involving a very personal treatment of the problem of reports to parents has much to recommend it It seems to be free from the most objectionable features of the traditional report card, but demands more time in its administration. It does, in this writer's opinion, merit further study in its relation to the subject-matter curriculum, to personality growth, and to social adjustment.

A change in organization in Stoneham, Massachusetts.—We are in receipt of the following communication.

> Superintendent Varney of Stoneham, Massachusetts, announced on January 4 that the Stoneham junior and senior high schools had ceased the two-platoon system of attendance which has been in practice during the past few years. Return to the one-session plan was effected by adopting the recommendations of the Survey Committee which studied the Stoneham schools, Grades VII–XII, during the summer of 1936.

Informing the public of the schools' work and needs.—"Campaign Material for the Special School Levies" is the title of an extensive mimeographed volume issued some time ago by the Board of Education of Cincinnati. It is an excellent illustration of the kind of information that a board should provide its public, and the material is admirably organized and presented.

WHO'S WHO IN THIS ISSUE

ARTHUR I. GATES, professor of education at Teachers College, Columbia University. NELSON B. HENRY, associate professor of education at the University of Chicago. CARLETON WASHBURNE, superintendent of schools at Winnetka, Illinois. MABEL VOGEL MORPHETT, director of research of the Winnetka public schools. DAVID SEGEL, specialist in tests and measurements of the United States Office of Education. HAROLD H. POSTEL, principal of the Moseley School for Boys, Chicago, Illinois. FLORENCE L. GOODENOUGH, research professor of the Institute of Child Welfare, University of Minnesota.

THE NECESSARY MENTAL AGE FOR BEGINNING READING[1]

ARTHUR I. GATES
Teachers College, Columbia University

For some time the problem of determining the optimum or necessary mental-age level at which reading can be successfully introduced has been under investigation. Recently statements have been made, in books written primarily for professional workers, which imply that this problem is fairly well solved. For example, Harrison states, "It has been found that in order to make any progress in reading a child must have attained a mental age of at least six years and that a mental age of six and one-half years more nearly insures success."[2] Betts also states, "An analysis of reading-readiness or aptitude tests shows the following factors to be significant for success with the typical first-grade reading program: (*a*) a mental age of at least six and one-half years. . . . . "[3]

These statements and most others appearing in professional books imply, more specifically, that success with *typical* first-grade reading programs requires a stipulated mental age, six and a half years being the age usually given These statements may be correct, although a critical analysis of some of the experiments would cause some persons to doubt the validity of stipulating so definite a level. The fact remains, however, that it has by no means been proved as yet that a mental age of six and a half years is a proper minimum to prescribe for learning to read by *all* school methods, or organizations, or *all* types of teaching skill and procedures. It is quite conceivable —indeed the evidence in general tends now definitely to show—that the crucial mental-age level will vary with the materials; the type of teaching, the skill of the teacher; the size of the class; the amount of preceding preparatory work; the thoroughness of examination; the frequency and the treatment of special difficulties, such as visual defects of the pupil; and other factors. For example, in a study by Gates and Bond[1] a mental age of six and a half years did not appear to be a critical level.

---

[1] For most of the statistical work involved in this article the author is indebted to the services of workers in United States Works Progress Administration Project No. 6063-C.

[2] M. Lucile Harrison, *Reading Readiness*, p 6 Boston: Houghton Mifflin Co., 1936

[3] Emmett Albert Betts, *The Prevention and Correction of Reading Difficulties*, pp 24–25. Evanston, Illinois: Row, Peterson & Co , 1936.

In the present article are assembled data on the relations between mental age and success in learning to read in Grade I in a number of different groups which were taught by appreciably different methods and materials. The particular classes selected for this report are taken from a somewhat larger number that were analyzed to illustrate the facts related to certain issues.

FIRST GROUP

The first illustrations are taken from the results of the work in first-grade classes in which the teaching was done under the supervision of Miss Florence W. Raguse, of the State Teachers College at Indiana, Pennsylvania.[2] The pupils were divided into two classes of forty-one and thirty-seven pupils, respectively. The average intelligence quotient of the former class was higher than that of the latter. Full details concerning the pupils and the methods of instruction are given in Miss Raguse's article. It will be sufficient to state here that, in addition to the usual equipment of books, these teachers were provided with a considerable amount of supplementary practice and teach-and-test materials made up for the purpose. Not only was the teaching rather closely supervised, but the teachers had a larger amount of easy reading and self-diagnostic material than usual. For the present purposes, the pupils of these two classes have been combined into one group. The reading attainments were measured more than a month before the end of the school year with the three Gates Primary Silent Reading Tests. As a measure of success in reading, the results of these three tests were averaged. The teachers also kept a record of the total number of books read prior to the time that the achievement tests were given.

---

[1] Arthur I. Gates and Guy L. Bond, "Reading Readiness," *Teachers College Record*, XXXVII (May, 1936), 679–85.

[2] Florence W. Raguse, "Qualitative and Quantitative Achievements in First Grade Reading," *Teachers College Record*, XXXII (February, 1931), 424–36

In the group of seventy-eight pupils the correlation between mental age and average reading grade was .62 ± .05. This figure, it will be noted, is rather high in comparison with the correlations usually obtained in similar studies. The correlation between chronological age and average reading grade was .10 ± .08. The correlation between average reading grade and the number of books read was .84 ± .02.

As an illustration of the procedure, the records of the individual pupils for mental age, chronological age, average reading grade, and number of books read are given in Table I, in rank order from the highest to the lowest mental age. As a means of locating a possible critical mental age for success in beginning reading, these pupils were grouped according to mental age by six-month steps beginning with a step containing pupils from the lowest in the list to 5.0 years, inclusive; then from 5.0 to 5.5, inclusive; and so on to the highest. In these classes was a range of mental age from 53 months to 102 months, or approximately 2 to 1. The lowest mental age was four years and five months, and the highest eight years and six months, a difference of four years and one month. It will be noted that practically half the members of the class had a mental age of less than six years on entering. An inspection of these several groups will show that practically all the near-failures fell in the group with a mental age below five years.

The method of determining the minimum mental age desirable for introducing a child to reading involves certain problems. For example, what reading ability should a pupil have acquired by the end of the year to have achieved a status which may be described as a successful reading experience? Since this matter is one on which opinions may differ, the data from these pupils have been computed on three bases: (1) the percentage of pupils who in the final test achieved a reading-grade score of 1.50 or higher, (2) the percentage achieving a reading-grade score of 1.75 or higher, and (3) the percentage equaling or exceeding 1.95. The last figure represents substantially the norm on the Gates test for the end of Grade I. It should be noted that in the population at large approximately 45 per cent of the pupils would have fallen below a reading grade of 1.95 at the end of Grade I. Table I shows that every pupil achieving a reading grade of 1.95 or higher is credited with having read a considerable number of books during the year; that, of those who reached or exceeded a grade of 1.75, none failed to read a number of books; and that, of those reaching a reading grade of 1.50 or lower, none had a record of extensive successful reading.

TABLE I

READING ACHIEVEMENT OF 78 PUPILS IN RAGUSE'S STUDY DISTRIBUTED ACCORDING TO MENTAL AGE

Mental Age (in Months)	Chronological Age (in Months)	Average Reading Grade	Number of Books Read	Mental Age (in Months)	Chronological Age (in Months)	Average Reading Grade	Number of Books Read
102	90	3.23	31	73	76	3.48	37
102	77	3.02	27	73	75	2.88	15
95	113	2.20	14	71	79	2.08	14
92	71	3.25	26	71	79	2.18	19
92	71	3.25	26	71	88	2.21	20
91	69	3.28	31	71	79	2.52	22
90	77	3.18	24	70	75	2.53	18
90	76	3.32	27	70	70	2.60	24
88	87	3.28	36	70	74	2.34	17
88	80	3.47	28	70	68	1.95	8
87	85	2.75	23	69	77	2.90	24
85	83	2.88	18	69	77	2.03	9
84	74	2.80	21	68	76	2.03	16
84	69	2.90	21	68	76	2.57	20
83	77	3.22	31	68	72	2.87	19
83	78	3.15	22	67	80	2.83	26
83	75	2.45	20	67	87	2.50	21
83	79	2.90	19	67	68	2.23	14
83	79	2.57	17	66	82	1.97	8
82	73	2.32	22	66	72	2.23	21
81	74	2.53	24	66	89	2.90	30
80	83	3.00	23	65	74	2.43	31
80	81	3.18	25	65	76	2.82	23
80	87	2.93	26	65	75	1.91	3
80	77	2.26	9	64	73	2.05	9
79	80	2.67	19	64	73	1.85	9
79	72	2.57	23	64	77	2.68	22
77	73	2.73	21	62	76	2.50	21
76	78	2.75	20	62	81	1.98	8
76	78	2.52	20	61	80	1.73	4
75	68	2.62	22	61	70	3.07	27
75	78	3.25	21	60	72	1.90	4
75	88	2.62	20	59	72	0.40	0
75	77	1.65	4	58	90	1.55	2
74	73	2.55	15	55	70	2.58	21
74	73	2.73	22	55	77	1.68	3
73	73	2.73	21	54	71	1.85	8
73	72	3.20	18	54	68	0.00	0
73	72	2.37	14	53	66	0.47	0

From Table I the data in Table II have been assembled, showing the percentages of pupils in the group with stipulated beginning mental age, such as 5.0 or higher, who failed to exceed a reading grade of 1.50, 1.75, and 1.95, respectively. Thus, of all the pupils who had a mental age of 5.0 or higher at the beginning of the year, none made a reading grade at the end of the year below 1.50, 3 per cent made a reading score below 1.75, and 7 per cent made a score below 1.95. Of the children who had a mental age of 5.5 or higher at the beginning of the year, none fell below a reading grade of 1.50, 2 per cent fell below 1.75, and 2 per cent fell below 1.95. Of the children having a mental age of 6.0 years or higher at the beginning of the year, none fell below a reading grade of 1.50, 2 per cent fell below 1.75, and 2 per cent below 1.95. Of those having a mental age of 6.5 or higher, none made a reading grade below 1.95.

TABLE II

PERCENTAGES OF PUPILS IN RAGUSE'S STUDY WHO FAILED TO ACHIEVE READING GRADES OF 1.50 1.75, AND 1.95, DISTRIBUTED ACCORDING TO MENTAL AGE

MENTAL AGE	PERCENTAGE OF PUPILS WITH READING GRADES		
	Below 1.50	Below 1.75	Below 1.95
5.0 or above .	0	3	7
5.5 or above.	0	2	2
6.0 or above . .	0	2	2
6.5 or above . .	0	0	0

As already stated, decision concerning the level of achievement in reading which should be considered optimum or satisfactory is arbitrary. If we assume that a program is, under practical conditions, highly satisfactory when no more than 10 per cent of the pupils fall below a reading grade of 1.95, it appears that in the case of this group a mental age of 5.0 is satisfactory. Only 7 per cent of the pupils with a beginning mental age of 5.0 or higher fell below a final reading grade of 1.95. Since defects in vision and in hearing, poor previous training, illness, absence from school, and many other factors, as well as inadequate mental age, are known to result in inferior reading attainments, it will be obvious that the record in this class was remarkably good. Since substantially all the seriously backward cases fell in the group with a mental age of five years or less at the beginning of the year and since very few of the seriously backward pupils appeared among the higher mental ages, the writer considers it entirely justifiable to say that a mental age of 5.0 at the beginning of the year, other things being satisfactory, is sufficient for learning to read satisfactorily. It should be noted that the achievement of this class as a whole, indeed the achievement of the half of the class with the lowest mental ages, was superior to the attainment of average pupils in typical American schools.

SECOND GROUP

A second group of pupils was taught in a New York City school by teachers who were judged to be more expert than the average and who used a considerable body of experimental materials developed by the writer and his colleagues. These materials consisted of various types of practice and seatwork, teach-and-test materials, and supplementary easy reading material, largely limited to the vocabulary used in the basal books. The class consisted of forty-eight pupils, for forty-five of whom complete records were obtained. A summary of the pertinent data is contained in Table III. The first part of the table gives a summary of the data for the pupils arranged in a mental-age hierarchy by half-year units. The second part of the table is a summary identical in form with that presented in Table II. In this class pupils with a mental age of less than five years were not so successful as in the class reported by Raguse. One out of five fell below a reading grade of 1.50, two fell below 1.75, and three below 1.95. When all the pupils who began with a mental age of 5.5 or higher are considered, it is found that only 3 per cent fell below 1.50, 9 per cent below 1.75, and 12 per cent below 1.95. The records for the pupils with a minimum mental age of 6.0 are similar. To the writer it appears reasonable to state that this program was satisfactorily adjusted—some allowance being made for the practical limitations due to absence from school, uncorrected defects, and other constitutional limitations—to pupils with a mental age of 5.5 or higher. In other words, it is a program which represents a difficulty level about one-half year higher than that employed for the first group.

In this group the correlation between mental age and reading grade was .55, somewhat lower than the .62 found for the Raguse group.

TABLE III

NEW YORK PUPILS TAUGHT WITH SPECIALLY PREPARED MATERIALS WHO FAILED TO ACHIEVE READING GRADES OF 1.50, 1.75, AND 1.95, DISTRIBUTED ACCORDING TO MENTAL AGE

MENTAL AGE	NUMBER OF PUPILS	READING GRADE BELOW 1.50	READING GRADE BELOW 1.75	READING GRADE BELOW 1.95
		Number of Pupils		
7.5–8.0	2	0	0	0
7.0–7.4	3	0	0	0
6.5–6.9	8	0	1	1
6.0–6.4	9	1	1	1
5.5–5.9	10	0	1	2
5.0–5.4	8	0	1	3
4.5–4.9	5	1	2	3
		Percentage of Pupils		
5.5 or above	32	3	9	12
6.0 or above	22	5	9	9
6.5 or above	13	0	8	8
7.0 or above	5	0	0	0

THIRD GROUP

A third group consisted of forty-three pupils in a rather superior urban public school. In this class very good teaching was conducted with a better-than-average amount of typical classroom reading matter and other equipment, but the teacher did not have any large amount of the specially prepared types of teach-and-test material employed in the two groups previously considered. Table IV gives a summary of the data for forty pupils in the same form as that employed in Table III. In this case poor reading appeared among the pupils with mental ages below 6.0. For the entire group with mental ages of 5.5 or above, 14 per cent earned a reading grade below 1.75 and 27 per cent below 1.95. When the group is restricted to those with mental ages of 6.0 or higher, only 5 per cent fell below a reading grade of 1.50, 10 per cent below 1.75, and 20 per cent below 1.95. Figures for the higher mental-age groups were greatly affected by two pupils in the upper mental ages who fell below the average reading score. These represent instances of special factors contributing to reading difficulty which may, and do, appear at all levels. If some allowance is made for this possibility, it is reasonable to say that the program in this case was fairly well suited for all pupils with a beginning mental age of six years or higher. In other words, the program used with this group requires a mental age a full year in advance of that used in the Raguse group and a half-year in advance of that used in the New York City group.

TABLE IV

Urban Pupils in Superior Public School Taught without Large Amount of Specially Prepared Materials Who Failed To Achieve Reading Grades of 1.50, 1.75, and 1.95 Distributed According to Mental Age

Mental Age	Number of Pupils	Reading Grade below 1.50	Reading Grade below 1.75	Reading Grade below 1.95
		Number of Pupils		
7.5–8.0	1	0	0	1
7.0–7.4	3	0	0	0
6.5–6.9	7	0	1	1
6.0–6.4	9	1	1	2
5.5–5.9	9	1	2	4
5.0–5.4	7	1	3	5
4.5–4.9	4	2	3	4
		Percentage of Pupils		
5.5 or above	*29*	*7*	*14*	*27*
6.0 or above	20	5	10	20
6.5 or above	11	0	9	18
7.0 or above	4	0	0	25

The correlation between mental age and reading grade in this group was .44. It will be noted that, thus far, the better the program is suited to the pupils of lower mental age, the higher the correlation between mental age and reading ability at the end of the year.

FOURTH GROUP

The fourth group comprises eighty pupils from two public-school classes in a metropolitan area. Both classes were large; the teachers were judged to be somewhat below the average of those in the system; and the reading materials and other equipment were inferior. The classes were taught largely by mass methods, with much oral instruction and little individual or self-manageable work. There was less attempt than usual to adjust instruction to individual needs.

TABLE V

PUPILS IN METROPOLITAN SCHOOLS TAUGHT WITH INFERIOR MATERIALS WHO FAILED TO ACHIEVE READING GRADES OF 1.50 1.75, AND 1.95, DISTRIBUTED ACCORDING TO MENTAL AGE

MENTAL AGE	NUMBER OF PUPILS	READING GRADE BELOW 1 50	READING GRADE BELOW 1 75	READING GRADE BELOW 1.95
		Number of Pupils		
8.0–8 4	1	0	0	0
7 5–7 9	3	0	0	1
7.0–7 4	7	1	1	3
6 5–6 9	14	1	3	5
6 0–6 4	17	3	5	8
5 5–5 9	17	2	4	9
5 0–5 4	13	4	6	11
4 5–4 9	8	3	5	8
		Percentage of Pupils		
5 5 or above	59	12	22	44
6 0 or above	42	12	21	40
6 5 or above	25	8	16	36
7 0 or above	11	9	9	36

The data in Table V indicate that in this group a larger proportion of the pupils fell below reading grades of 1 50 and 1.75 than in the other groups. It will be noted also that some pupils from all the mental-age categories except the two highest fell below a reading grade of 1.50. Of the pupils with a mental age above 6.5, 8 per cent achieved a reading grade below 1.50, 16 per cent below 1.75, and 36 per cent below 1.95. Of those having a mental age of 7.0 or higher, however, only 9 per cent fell below 1.75, although 36 per cent fell below 1.95. It is, of course, difficult to designate a satisfactory mental-age level for instruction which was apparently of rather unsatisfactory general character. If a reading grade of 1.75 is set up as a reasonably satisfactory achievement at the end of the year, 84 per cent of the pupils with a mental age above 6.5 would have been rated as successful and 91 per cent of those with a mental age above 7.0. In other words, it would appear that on this rather conservative basis a mental age of somewhere between 6.5 and 7.0 would be necessary for a reasonable assurance of success in reading.

The correlation between mental age and reading grade in this group was .34.

CONCLUSIONS

These representative data point rather convincingly to certain conclusions concerning the relation between mental age and success in beginning reading. In the first place, they indicate clearly that statements concerning the necessary mental age at which a pupil can be intrusted to learn to read are essentially meaningless. The age for learning to read under one program or with the method employed by one teacher may be entirely different from that required under other circumstances. In the first of the groups compared, in which modern and effective instruction, well adjusted to individual differences, was provided, a mental age of 5.0 appears to be sufficient. Of the children equaling or exceeding a mental age of five years in this group, none appeared to be seriously retarded and only 7 per cent fell below a reading grade of 1.95, which is the average reading achievement for pupils in America at large at the time in the school year that the measurement was made. A second group was found in which the minimum reading age was about a half-year higher. A third group required a mental age of about 6.0 years, or one full year higher. In a fourth group, representing the opposite extreme of the first, children with a mental age of 6.5 fared none too well, and some of those with mental ages of 7.0 or above had difficulty. Of the latter, 36 per cent failed to exceed the national norms. Obviously, therefore, general statements that any given mental age should be achieved by a pupil before he begins to learn to read are misleading. The question must be asked: How and what is the pupil to begin to read?

The foregoing conclusion should not be interpreted to imply that mental age is of no significance in learning to read. In the several groups considered in this article, the correlations between mental age and reading grade were .62, .55, .44, and .34, respectively. These coefficients show, as do the more detailed data given in the tables, a substantial but variable relation between mental age and reading achievement. The most significant finding is the fact that the correlations between mental age and reading achievement were highest in the classes in which the best instruction was done and the lowest in those in which the poorest instruction was provided. More specifically, the magnitude of the correlation seems to vary directly with the effectiveness of the provision for individual differences in the classroom. When the teacher uses a mass method, with little or no provision for helping individuals in their special needs, with a program which would appear to be pointed to those with a certain equipment and background, these pupils seem to get on rather well but others encounter difficulty. It should be noted that in this case factors other than mental age play a considerable role, since pupils with relatively high mental ages fail occasionally to learn to read especially well. In such a group the correlation apparently is low partly for the reason that the instruction fails to give each pupil an opportunity to apply his mentality most effectively. If he is to be enabled to do so, attention must be given to his particular difficulties and limitations as well as his special aptitudes and interests.

The preceding discussion, furthermore, should not be considered as antagonistic to the plan of attempting to determine the mental-age level or other characteristics of the pupil needed for making a successful beginning in reading. The study reveals the necessity of determining these factors in relation to the particular program into which the pupils are to be introduced. The writer believes, in fact, that this consideration is not only an important but a necessary phase of normal instruction. That is to say, he believes that it is necessary for each teacher to understand the mental age and other qualifications required for successful pursuance of the program that she will put into effect. One of the reasons for the success of the programs used with the first two groups is the fact that the abundant use of individualized, self-diagnostic materials enabled the teacher to discover the particular needs of the individual pupils and to make adjustments to them, whereas in the fourth group the use of the mass method resulted in a disregard of all sorts of individual aptitudes, difficulties, failures, absence from school, and other factors which determine achievement. The study shows that the determination of the optimum mental age and other factors in reading readiness is not so simple as some recent pronouncements seem to imply. It is impossible to set up, once and for all, a stipulated list of particular requirements for successful work in beginning reading in general. Reading is begun by very different materials, methods, and general procedures, some of which a pupil can master at the mental age of five with reasonable ease, others of which would give him difficulty at the mental age of seven. It is necessary for each teacher to determine exactly what mental age, what background of previous experience, what special aptitudes her particular program requires.

Finally, it should be made clear that the results presented in this report do not answer the question: At what age is it best to introduce reading to pupils? Although the data seem to indicate that it is *possible* to organize materials and methods to teach children to learn to read at a mental age of 5.0 or higher, they do not, in any way, imply that it is *desirable* to do so. Decision on the optimum time of introducing reading to pupils must be based upon investigations of the value of this activity at different stages of development. It would be necessary to determine the general educational, personal, and social effects of introducing reading at different stages by methods so well adjusted to the pupils that they would all learn to read successfully.

CONFLICTING VIEWS ON FEDERAL AID

NELSON B. HENRY
University of Chicago

The resolutions of the National Education Association and of the Department of Superintendence adopted at their conventions in 1936 and the activities of these organizations in support of federal aid for schools are evidence that the leadership of these influential educational associations is largely favorable to this cause. The reports of the National Advisory Committee on Education in 1931[1] and the National Conference on the Financing of Education in 1933,[2] to mention only two of a number of nationally representative agencies which have been specifically concerned with federal relations to education, are emphatic in their advocacy of federal participation in the support of state school systems. It is unnecessary to refer to the pronouncements of the numerous state and regional groups which support the demands of the schools for substantial contributions from the resources of the federal government. The representative character of the agencies designated leaves no doubt of the existence of a widespread favorable attitude on this question among the leaders in the profession.

It is not to be assumed, however, that the several persons supporting the recommendations of a committee or the resolutions of an association favorable to federal aid are unanimously in accord with the specific stipulations of such recommendations or resolutions. In general, the action of any organized group represents a compromise or an adjustment of more or less divergent views on the part even of those who have formulated the proposal. Moreover, with the practical problems involved in securing legislation providing for federal aid, prominent leaders of many of the associations now backing this movement are frequently required to assume the role of sponsor for a measure which has some promise of successful issue at the hands of Congress even though they do not willingly approve some of the provisions contained in the proposal. The real attitudes of individual leaders who have been prominently identified with recent efforts to secure federal aid for state school systems is therefore best determined by reference to individual expressions of opinion. These individual opinions range all the way from an unqualified approval of practically anything that bears the label of federal aid to an equally unqualified objection to any extension of the existing program of federal aid on a permanent basis.

---

[1] National Advisory Committee on Education, *Federal Relations to Education*, Part I Washington· National Advisory Committee on Education

[2] Joint Commission on the Emergency in Education, *Report of the National Conference on the Financing of Education*. Washington, National Education Association, 1933

An interesting example of the lack of unanimity on the part of leaders in the field of education is found in published statements of three former United States Commissioners of Education. Former Commissioner Tigert opposes federal support for public education for the following reasons:

> 1. Federal money would be followed by federal interference. Public education is, and should remain, a state and local responsibility.
>
> 2. The use of federal money for support of schools would decrease local support. The net amount available to schools would be no greater as local support would vanish about as fast as federal money became available. There would be a diminishing interest in local responsibility and other evils always attendant on paternalism.
>
> 3. Every state in the Union has adequate resources to provide a satisfactory, uniform system of schools.[1]

The late William John Cooper offered the following conditional approval of a program of federal aid.

> In general I favor federal support for schools if this support is a flat sum paid over to each state to be distributed by the superintendent of schools of the state in the same way that the state money is distributed.
>
> I believe that this depression has shown that some states, such as Alabama in which a large state fund is supplied, are badly hurt by the depression. I think only federal aid can help a situation of this sort. I believe the next Congress should act, granting aid to the states that are hardest hit and holding out a promise of permanent assistance to states that reorganize their district plans in such a way as to reduce the number of districts to approximately one-tenth,

---

[1] "What Others Have To Say about Federal Subsidies," *Nation's Schools*, XIII (February, 1934), 36.

> except where the county is used as the basic district. Also there should be a reorganization of their state departments in order that these may be appointed rather than elected; for an indefinite term rather than for a specific number of years.
>
> When the emergency is over and states have reorganized in this way I suggest that a permanent federal fund be established, from which perhaps $25 per pupil would be made available to each state.[1]

Former Commissioner Zook feels that recent developments in the tax problems of the federal government and the states probably indicate the necessity for increased appropriations from federal resources in support of state school systems. "I am convinced," he says, "that if the federal government continues to levy these more modern forms of taxation, as it alone can do most effectively, it follows as clearly as can be that some proportion of the proceeds of these taxes should be returned to the states for the support of state and local governmental functions, including schools."[2]

On the point of the exercise of control in consequence of these grants-in-aid, the two commissioners who favor federal aid under specified conditions are not entirely in agreement as to the method by which such control should be exercised. Cooper's statement seems to imply that certain stipulations of the statute should be met by the states as a condition before the federal money is received. Zook objects to the plan of writing the specifications into the law and urges that discretionary authority be vested in some agency of the federal government in order that the federal funds may be used in such a manner as to insure the most favorable returns from the increased support to be provided for the schools. In answer to the criticisms of persons who have expressed abhorrence at the idea that any office or bureau in Washington might exercise some measure of control over so important a function as education, he says, "In the long run I am convinced that we shall have much more federal control of education through regulations inserted in the law than from a federal Office of Education which is clothed with discretionary power in the distribution of federal funds."[3]

---

[1] *Ibid.*, p 37.

[2] George F. Zook, "Federal Aid to Education," *School and Society*, XL (July 14, 1934), 43.

[3] *Ibid.*, p 48.

The differences in the opinions held by these three prominent leaders in education do not reflect the full divergence of view that is manifest in the public statements of active leaders in general at the present time. When any considerable number of statements of leaders in the field of education are considered, one finds it difficult to choose from among the varying viewpoints a selected few which may be presented with some degree of assurance that they represent the attitudes of a reasonable number of the important leaders with respect to the various problems involved in a permanent program of federal aid. Apart from those who apparently are willing to accept federal aid in any form and under any conditions and those others who apparently are unwilling to consider any additional grants from the federal government for such reasons as those cited by former Commissioner Tigert, some leaders are found to be favorable to federal aid if it is accompanied by at least a measure of control over the use that is to be made of the money thus acquired, while others contend that the federal government should recognize its responsibility to the states and to the schools by generous contributions but that it is not the province of the federal government to dictate the manner in which the money may be spent. Other leaders are equally insistent that the claim for federal aid is valid from every point of view but that it would be better not to receive any additional aid from the federal government than to receive it under conditions which might result in an extension of federal authority over the organization or administration of the public schools. T. C. Holy, obviously moved by these conflicting desires, has stated his position as follows:

> I am opposed to a federal subsidy for education as a permanent policy unless it carries with it a careful check or appraisal on the use of this subsidy. This implies a control by the federal government, the wisdom of which seems doubtful. Such control, so far removed from the teachers and pupils, tends toward an inflexible organization not sensitive to social changes and varying conditions It also creates a powerful instrument, which has been used in other countries to control public opinion.[1]

The argument sometimes runs that the breakdown of state tax systems has created a necessity for the federal government to use its superior taxing facilities for the advantage of an indispensable social institution, while another contention is that federal aid, if any, should be so administered as to stimulate sensible reform of state tax systems. Some educators see in the various proposals for federal participation in the support of the public schools a probable stifling and menacing effect on community interest in public education; others apparently look on federal aid as a vitalizing stimulus to a fast-declining sense of interest and responsibility on the part of the average American community in the welfare of its schools. These and other points of difference are so emphasized and so magnified in the various expressions of opinion among persons who have studied the problem thoughtfully that it is not surprising to find even the veteran Payson Smith explaining his position in the following terms.

---

[1] "What Others Have To Say about Federal Subsidies," *Nation's Schools*, XIII (April, 1934), 16.

> The whole matter of federal aid for the support of education is so much in flux that I am frankly not able to reach a definite conclusion as to what the permanent policy should be. I am studying the question constantly. In general, I believe that some federal support of education will not only be desirable but may become necessary.[1]

Since federal aid in its larger aspect is very directly related to the support of elementary and secondary education, the views of city school superintendents as a group have a peculiar significance. While these views are not recorded as yeas and nays with regard to any specific proposal, many of these men have discussed the problem from one angle or another. The early issues of the *Nation's Schools* in 1934 carry a symposium in which the views of a number of them are stated. Here again no crystallization of opinion is found. Cody (of Detroit), Potter (Milwaukee), Stetson (Indianapolis), and Stouffer (Wilmington, Delaware), among others, are definitely opposed to federal aid. Gosling and Melcher, of Akron, Ohio, and Kansas City, Missouri, favor the adoption of a program of federal aid embodying no conditioning requirements. Glenn, of Birmingham, Alabama, does not fear the imposition of unfavorable requirements on the part of the government; rather he thinks that there might be some advantages in the types of standardization that would likely ensue. Anderson (Omaha), Broome (Philadelphia), and Sutton (Atlanta) are agreed that certain conditions should underlie the federal grants, but they suggest different reasons and considerations as bases of the control to be exercised.

---

[1] "What Others Have To Say about Federal Subsidies," *Nation's Schools*, XIII (May, 1934), 22

The interest and the responsibility of the federal government with respect to the support of public schools have been the subject of discussion by other leaders of the profession, including some careful students of administrative problems who are not directly responsible for the administration of school systems. There are also conflicts among the views advanced by these representatives of the profession, with consequent variability in motives and methods advocated as appropriate bases of a program of federal aid. Thus, Mort's extensive researches in school finance have led him to formulate a program[1] of federal aid which undertakes to determine mathematically the equitable shares of the various states in the sum which will have to be provided by the federal government to enable each state to maintain an acceptable school system in view of its peculiar requirements and resources. By means of this predetermination of the amount of aid to be provided for each state, Mort seeks to avoid the disadvantages of excessive or wavering forms of control.

In direct opposition to fundamental features of the Mort proposal, Judd objects pointedly to any immediate definition of the form of continuing federal subsidies for schools and pleads for an experimental program, which in time may reveal the procedures and the conditions under which the federal grants may be administered so as to provide aid for the most needy communities and so as to insure that all money furnished by the federal government will be used to improve the schools and not to perpetuate their deficiencies. The following excerpts from his address at the St. Louis convention of the Department of Superintendence will indicate the substance of his view.

> With the facts which have been cited in mind, I advocate a period of experimentation during which the intelligence of American educators and governmental officials will be devoted to a careful study of the effects of new federal

---

[1] *Federal Support for Public Education.* A Report of an Investigation of Educational Need and Relative Ability of States To Support Education as They Bear on Federal Aid to Education Made under the direction of Paul R. Mort and under the auspices of Columbia University Council for Research in the Social Sciences. New York: Teachers College, Columbia University, 1936.

> appropriations for the support of public schools of the elementary and secondary levels. The purpose of this experimental endeavor should be the discovery of the best possible methods of equalizing educational opportunities in different sections of the United States. I advocate the distribution of federal funds first and in largest measure to those states in which the average income is low. I advocate that experimentation begin with some such modest sum as $50,000,000 or $75,000,000. I mention these sums because they were the amounts discussed and approved as emergency funds by a competent committee which was convened by the United States Commissioner of Education in 1933. The distribution must, in my judgment, be left to the discretion of a properly constituted federal authority, preferably a small commission made up of experienced educators and presided over by the United States Commissioner of Education, which shall pass on the requests made by various states for federal aid. . . . .
>
> If experience accumulated during experimentation with the equalization fund justifies the federal government in taking over a share of the support of schools in all the states, then federal grants should be made the basis of certain demands which will assure the nation of proper conduct of its schools.[1]

The gradual development of a program of federal aid and the function of control as an element of this program are similarly stressed in a statement by Fred Engelhardt. Citing as an analogy the gradual development of different plans of state aid to local school districts with consequent increase in the exercise of state control, Engelhardt suggests that "the states are now passing through a similar evolution with respect to the place of the federal government in educational matters." What we may look forward to in the immediate and the more remote experiences with federal aid is described in the following paragraphs.

> It will require some time for the necessary readjustment in thinking to take place, the same as it did in the case of state support. It will be impossible to operate for any length of time on the theory that the federal government may grant money to the states for educational purposes without federal control. Time and past experience will show that certain sections of the country will profit at the expense of other sections under such a plan. In other words, the people will ask: Why allow an area of the country to continue as a state when it cannot exist economically as a self-supporting unit? The doctrine of state rights will then be bitterly contested.
>
> As the federal government assumes its responsibility for public education

---

[1] Charles H Judd, "Federal Support of Public Education," *Official Report of the Department of Superintendence, 1936*, pp 105–7. Washington: Department of Superintendence of the National Education Association, 1936 (Also in *Elementary School Journal*, XXXVI [March, 1936], 507–10)

> it will be necessary to establish that balance between support and control which is essential to the maintenance of efficient and economical schools. It will be discovered that certain educational activities are best carried on by the federal government; that other activities are handled best by the state, and that still other activities are rightfully the responsibility of the local school divisions within the state. Is it mere speculation to imagine that there will be fewer than forty-eight states when the ideal plan of public education is eventually evolved?[1]

The last two statements of opinion seem to indicate clearly enough the logical next step in the movement toward federal aid for the public schools. The differences of opinion still prevailing among careful students of school administration as well as among those who hold positions of responsibility in important school systems point conclusively to the need for a period of adjustment and an experimental attack on the problems involved in a program of permanent aid. It is obvious that the safest course to pursue from this point would be to recognize the value of a period of adjustment and to seek the immediate inauguration of a flexible program under the guidance of a competent agency endowed with the means and the authority to determine by experimental methods the amount and the form of federal support which will best serve the interests of public education in this country.

---

[1] Fred Engelhardt, "Federal Support for Public Schools Is Inevitable," *Nation's Schools*, XIII (February, 1934), 47.

MANUSCRIPT WRITING—SOME RECENT INVESTIGATIONS

CARLETON WASHBURNE AND MABEL VOGEL MORPHETT
Public Schools, Winnetka, Illinois

Manuscript writing has made its way into the primary grades so positively and with such a weight of scientific evidence in its favor that a discussion of its merits at that level is no longer necessary. Until recently, however, evidence has been very meager on the question of whether children should change from manuscript to cursive writing and, if so, at what time and by what means. Gates and Brown[1] showed that, when children in a New York school were given training in cursive and in manuscript writing for one semester, the children in the fourth, fifth, and sixth grades showed a greater gain in cursive writing. The experiment, however, is scarcely germane to the general problem, since the question is not: What will happen if children who have been trained in cursive writing for the first several years of their school life are given one semester's instruction in manuscript writing? The question is: Will children trained in manuscript writing from the beginning write more slowly as they reach the higher grades? Gray[2] showed that, for ten adults who knew how to do manuscript writing, the speed of cursive writing was greater. He did not, unfortunately, inquire how long these adults had been doing manuscript writing or whether they used it habitually. Obviously, a person who had been trained all through school to use cursive writing and who used cursive most of his adult life, learning manuscript for teaching purposes, might be expected to write manuscript more slowly. Again, Gray's investigation does not answer the question whether adults who use manuscript habitually write it less rapidly than cursive.

---

[1] Arthur I Gates and Helen Brown, "Experimental Comparisons of Print-Script and Cursive Writing," *Journal of Educational Research*, XX (June, 1929), 1–14

[2] William Henry Gray, "An Experimental Comparison of the Movements in Manuscript Writing and Cursive Writing," *Journal of Educational Psychology*, XXI (April, 1930), 259–72

The present article sets forth investigations organized to answer the following questions: (1) How does the rate of writing manuscript under test conditions compare with national norms for the writing of cursive at the various grade levels? (2) What is the difference in rate of writing by high-school pupils who have been taught manuscript writing and who use it habitually and that of pupils who have always used cursive writing? (3) Among adults who have used manuscript writing habitually for at least two years, is the rate faster or slower than that for comparable adults who use cursive writing? (4) Are children who are taught to write manuscript handicapped in the reading of cursive after they reach eighth grade and high school?

To these four questions this article gives statistical answers. There are three other questions which it will attempt to answer in terms of experience: (1) Is there lack of individuality and personality in manuscript writing? (2) If a child is going to transfer from manuscript to cursive writing, when can the transfer best be made and by what means? (3) Are manuscript-writing signatures valid in business transactions?

Since Voorhis[1] has summarized all important investigations up to 1931, no reference will be made here to earlier investigations, especially since, except for the two mentioned in the introductory paragraph, the writers know of no recent and significant investigations bearing on the questions here raised.

Manuscript writing has been taught in the Winnetka public schools since 1924. At that time the children entering first grade and many of the children in second grade were taught manuscript. Each year, as these children moved up a grade, manuscript writing moved up with them, until it was the only kind of writing taught throughout the schools. The children who were in that first class have now graduated from high school, and all children who have gone through the Winnetka schools since that time have been trained in manuscript writing, the majority of them using this kind of writing right through their high-school life.

---

[1] Thelma G. Voorhis, *The Relative Merits of Cursive and Manuscript Writing.* Lincoln School Research Studies. New York: Lincoln School of Teachers College, Columbia University, 1931.

To check the relative rates of manuscript and cursive writing at the various grade levels has therefore been a comparatively simple matter in Winnetka, but we wished to compare with other schools as well. A list was therefore secured of schools in various parts of the United States that taught manuscript writing, and each was asked to give a timed test by having the children write "Mary had a little lamb" for two minutes continuously.

Table I shows the results in comparison with the Ayres Handwriting Scale. It will be noted that at the second-grade level Winnetka children are very much slower than the Ayres standard and that the children in the other schools are slightly slower. This difference is probably due to an effort on the part of Winnetka teachers to emphasize form rather than speed when the children are learning to write. By the end of the third grade the Winnetka children are almost equal to those of the other schools, but both groups are below the Ayres standard. The same situation is found at the end of the fourth grade. At the end of the fifth grade Winnetka children have overtaken the children in the other schools but are still distinctly behind the Ayres standard. This situation still holds, but to a less degree, at the end of the sixth grade. By the end of the seventh grade, however, both the Winnetka children and the children in the

TABLE I

RATE OF WRITING IN WINNETKA SCHOOLS AND OTHER SCHOOLS WHERE MANUSCRIPT WRITING IS TAUGHT COMPARED WITH AYRES STANDARD FOR CURSIVE WRITING

GRADE	NUMBER OF CHILDREN TESTED			AVERAGE NUMBER OF LETTERS WRITTEN PER MINUTE			
	Winnetka Schools	Other Schools	All Schools	Winnetka Schools	Other Schools	All Schools	Ayres Standard
I	177	673	850	12.5	16.4	15.9	.
II	133	838	971	17.7	27.3	26.7	31
III	188	617	805	33.5	36.8	36.4	44
IV	125	254	379	41.0	42.5	42.0	55
V	202	237	439	52.0	48.7	49.8	64
VI	179	194	373	62.9	62.6	62.8	71
VII	164	76	240	80.8	78.9	80.1	76
VIII	125	35	160	84.5	90.0	85.1	79

other schools have exceeded the Ayres standard and continue to do so at the end of the eighth grade.

Apparently, therefore, the development of speed in manuscript writing is, under current practice, somewhat slower than in cursive writing. We say "under current practice" because we believe it is the tendency for teachers of manuscript writing (we know it is true in Winnetka) to be much more meticulous about letter formation than they were in the teaching of cursive writing. They seem to feel that, once the manuscript forms are well established, the speed will take care of itself. The results in the seventh and the eighth grades seem to vindicate this point of view.

Willard Beatty confirms these findings in general as to the seventh and the eighth grades, although the rates that he reports are somewhat slower than those found in this investigation.[1]

The second question has to do with the rate of writing after children reach high school. Children from Winnetka attend the New Trier Township High School, together with children from three neighboring communities and a sprinkling of children from a variety of other elementary schools. The majority of children not trained in Winnetka have had the usual courses in cursive writing and continue this kind of writing in the high school. The majority of Winnetka children have had training in manuscript writing throughout their elementary-school careers and continue to use it right through high school. It was therefore a simple matter to give a speed test in writing to several hundred children at New Trier High School, in which each child would write according to his custom. Each child was asked to indicate on his paper whether he wrote manuscript all the time or part of the time or never. The records of children who wrote manuscript part of the time were disregarded, as there were no data to indicate whether "part of the time" meant occasionally or most of the time or whether the pupils had been trained in manuscript or cursive writing. Those who said they wrote manuscript part of the time, however, sometimes wrote cursive in the test and sometimes wrote manuscript. Such pupils who wrote cursive in the test wrote more rapidly than those who wrote manuscript (median number of letters written per minute—112 for cursive and 97 for manuscript).

---

[1] Willard W. Beatty, *More Verse*. Another Anthology from the High Schools Hand-copied in Manuscript Writing Bronxville Schools Bulletin No 25. Bronxville, New York: Bronxville Public Schools, 1935.

The data in Table II bear out the seventh- and eighth-grade data and indicate that, once the children have learned manuscript and have used it consistently through their school work, it tends to be slightly faster than cursive, certainly not slower.

The third question has to do with rate of manuscript writing in adult life as compared with cursive. Here we were handicapped by not having available any subjects who had used manuscript from childhood We therefore had to test adults who had received their early training in cursive writing and who had used it habitually until some time during adult life and had then taken up manuscript writing and habituated themselves to its use. The only requirement was that the subjects should have used manuscript for practically all their writing for at least two years.

TABLE II

COMPARISON OF RATES OF WRITING OF HIGH-SCHOOL PUPILS WHO HABITUALLY USE MANUSCRIPT OR CURSIVE WRITING

	Manuscript Writers	Cursive Writers
Number of children . . .	78	214
Number of letters written per minute.		
Lower quartile	104	99
Median .	116	113
Upper quartile . . .	131	126

The subjects used for this experiment were teachers in the Winnetka public schools, many of whom have, in connection with their teaching, learned manuscript writing themselves and have become converted to it to the point of using it exclusively. Some teachers use manuscript part of the time and cursive part of the time, but, for the same reason that we discarded such data from the high-school study, we discarded them from the study of adults: there was no way of determining how much more the teachers use one kind of writing than the other. It may be said in passing, however, that, of those who use manuscript part of the time, the records showed the cursive to be faster (median number of letters written per minute—116 for cursive and 103 for manuscript).

Table III shows the rate of cursive writing and manuscript writing on the part of both groups of teachers—those who use manuscript habitually and those who use cursive habitually. Naturally, those who use manuscript writing habitually know how to write cursive, having done so most of their lives. Those who use cursive habitually, on the other hand, have had no training in manuscript and would naturally be expected to make poorer scores in manuscript than the manuscript writers would in cursive. The experiment was conducted by having the teachers write a sentence over and over for thirty seconds in manuscript, then for thirty seconds in cursive, then a second thirty seconds in manuscript, and a second thirty seconds in cursive.

TABLE III

COMPARISON OF RATES OF WRITING MANUSCRIPT AND CURSIVE BY ADULTS

KIND OF WRITING	NUMBER OF SUBJECTS	NUMBER OF LETTERS WRITTEN PER MINUTE		
		Lower Quartile	Median	Upper Quartile
Manuscript by those habitually using manuscript	15	113	122	136
Cursive by those habitually using cursive	24	125	133	147
Manuscript by those habitually using cursive	24	90	110	120
Cursive by those habitually using manuscript	15	108	121	127

Here it is seen, as might well be expected, that adults who use manuscript habitually write cursive faster than those who write cursive habitually can write manuscript: one is a trained group and the other an untrained group. The real comparison is shown in the first two lines of the table, where it is seen that those teachers who use cursive habitually write somewhat faster than those who use manuscript habitually—11 or 12 letters a minute being quite consistently the difference at the lower quartile, the median, and the upper quartile. Willard W. Beatty states, "With adults, the average rate of speed for good, legible handwriting of either type is in the neighborhood of 122 letters per minute."[1] This rate corresponds to that of the Winnetka teachers who habitually use manuscript but is slower than the rate of the teachers who always use cursive, perhaps because the cursive writers were not trying to do good legible cursive but were writing as fast as they could. There are two explanations for the difference in the results of the test of adult teachers and the test of high-school pupils without assuming that manuscript is inherently any slower than cursive at the adult level. One is the fact, already mentioned, that the teachers who now use manuscript writing habitually had been brought up using cursive writing and had certainly written cursive for many more years than they had written manuscript. Another is that the majority of Winnetka teachers who use manuscript habitually are teachers in the lower grades, where they are continually putting careful models on the blackboard and are emphasizing form rather than speed. The majority of those using cursive habitually are upper-grade and junior high school teachers (or kindergarten and physical-education teachers), most of whom do not teach penmanship at all and who therefore are no longer emphasizing form.

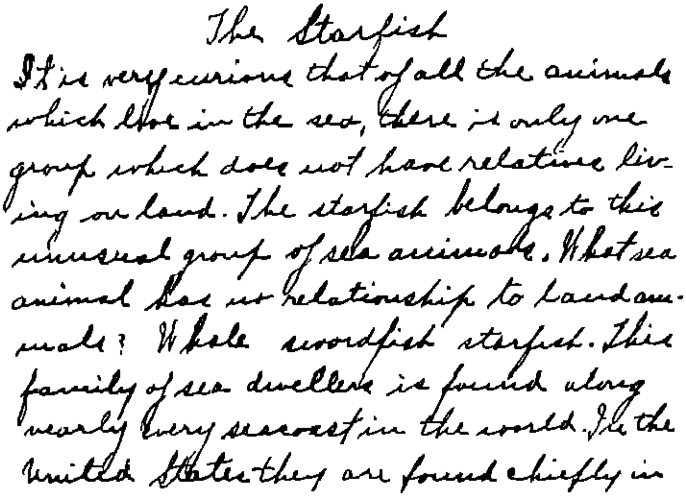
It would not, therefore, be safe to reason from the results of this test of Winnetka teachers that children trained in manuscript writing and carrying it on into adult life will write less rapidly than children using cursive. Both the seventh- and eighth-grade data and the high-school data would seem to contradict this reasoning. The only safe conclusion is that an adult who has used cursive writing most of his life may expect to write a little more slowly if he changes over to manuscript, even after two or more years of the habitual use of manuscript, particularly if he is a teacher of manuscript writing who is continually placing careful models on the board for children.

Incidentally, if the combined time of the person writing in cursive and the person reading what has been written were compared with the combined time of the person writing in manuscript and the person reading that, there is no doubt in the minds of the writers that the time-saving in manuscript writing would be overwhelming. However, no statistical data on this point are available.

---

[1] Willard W. Beatty, *op. cit.*, p. 4.

Our fourth question is whether children trained in writing manuscript can read cursive as well as do children trained in writing cursive. Again children at the New Trier Township High School were used as subjects.



The Starfish
It is very curious that of all the animals
which live in the sea, there is only one
group which does not have relatives liv-
ing on land. The starfish belongs to this
unusual group of sea animals. What sea
animal has no relationship to land ani-
mals? Whale swordfish starfish. This
family of sea dwellers is found along
nearly every seacoast in the world. In the
United States they are found chiefly in

FIG. 1.—Specimen of writing (reduced by one-third) used in testing the ability to read cursive by pupils trained to use manuscript writing.

In order to get a sample of cursive writing that would be more or less typical, we asked all the members of the Winnetka Rotary Club to write in their ordinary handwriting the first part of the song "America." The samples were rated on the Ayres Handwriting Scale by four teachers independently. The paper receiving the median rating happened to be that of the man who supervises physical education in the Winnetka schools. A bit of his writing is reproduced in Figure 1. We asked this man to copy Test Six of the Iowa Silent Reading Test, Form A. We then reproduced his paper photostatically, with the permission of the publishers, and gave this test to the children at New Trier High School, having each child indicate on the test whether he had always used manuscript writing or had always used cursive. It was on the back of this same reading test that the children wrote their speed samples in manuscript or cursive.

The results of this test are shown in Table IV, the scores being in accordance with the directions for the Iowa Silent Reading Test. For those who used manuscript part of the time and cursive part of the time, the reading rate was somewhat faster (median—19.1). The slight difference in Table IV is in favor of the cursive writers but is not serious enough to be a handicap since there are few times in life when the ability to read one more line in two minutes is vital. Nevertheless, on the basis of such studies, the Winnetka public schools have introduced a definite course in the reading of cursive at the end of the fifth grade. The children who have had this course had not yet reached high school when these studies were made, but they have been tested in eighth grade and compared, on the same test, with children of the same age in a neighboring community who always write cursive. The results are shown in Table V. Apparently, a little training in the reading of cursive completely wipes out the small handicap shown in Table IV.

TABLE IV

COMPARISON OF RATES OF READING CURSIVE WRITING BY HIGH-SCHOOL PUPILS TRAINED IN WRITING MANUSCRIPT AND CURSIVE

	Manuscript Writers	Cursive Writers
Number of children	80	215
Reading-test score:		
Lower quartile	14.0	14.6
Median	16.9	18.1
Upper quartile	21.8	23.5

There would seem, consequently, to be no evidence to indicate the necessity for changing from manuscript to cursive writing. The advantage of manuscript from the standpoint of superior legibility has never been challenged by anyone who has any acquaintance with the product. Probably, for the sake of scientific completeness, the

Iowa Silent Reading Test should be copied by a child of median ability in cursive writing and by a child of median ability in manuscript writing, and the results checked in terms of the speed with which the writing can be read. It would be a comparatively easy experiment, but we in Winnetka have never bothered to try it, nor wanted to spend the money on the test materials, when the most casual acquaintance with the two types of writing makes it evident to anyone that the manuscript is, on the average, much more legible. Any person doubting this general statement, however, should try out and report such an experiment. Willard Beatty[1] has given some delightful but not entirely fair comparisons between the two types of writing; he has given on the bottom of each page of a child's writing in manuscript, a sample of the writing of such persons as James Whitcomb Riley, Walt Whitman, Theodore Roosevelt, Louisa M. Alcott, and Abraham Lincoln. Of course, even in cursive, children write more legibly than do most adults.

TABLE V

COMPARISON OF RATES OF READING CURSIVE WRITING BY EIGHTH-GRADE PUPILS TRAINED IN WRITING MANUSCRIPT AND CURSIVE, THE MANUSCRIPT WRITERS HAVING HAD A COURSE IN READING CURSIVE

	Manuscript Writers	Cursive Writers
Number of children	69	75
Reading-test score:		
Lower quartile	12.2	12.8
Median	16.1	16.1
Upper quartile	22.9	18.3

While there seems to be no reason for changing from manuscript to cursive writing, question may legitimately arise concerning the difficulties in the way of such a transition in case a child voluntarily wishes to make it. We have no statistical data on this point, but have had a great deal of experience. Willard Beatty reports:

> About half the pupils now in our senior high school who were taught manuscript writing in the grades have either developed some individualized form of

---

[1] Willard W. Beatty, *op. cit.*, pp. 8–43.

linking letters or have requested and received aid in changing to script. An increasing number each year have preferred to keep the distinctive form of manuscript which they have developed in the grades.[1]

In the Winnetka schools, partly to silence the criticism of some parents, we offer an elective course in cursive writing any time after a child has his manuscript well established, preferably in the junior high school but permissibly in the fifth or the sixth grade. Since there are few children in each room whose parents want them to make this change or who want to do so themselves, regular class work in cursive is not practicable. Consequently we have developed a self-instructive workbook,[2] and it has been our experience that children, with little help from the teacher other than a general supervision of their work, are able to transform their manuscript into a very acceptable cursive in from six to twelve weeks of practice, using a writing period of approximately twenty minutes a day. The transition has caused no difficulty whatever, and, if the manuscript writing has been well developed and the letter forms have been made up to standard, the cursive writing tends likewise to be clear and legible and well formed. When, on the other hand, children try to change from manuscript into cursive writing before the manuscript has become thoroughly a part of them, we find that the cursive writing tends to be poor.

Without statistical evidence we would say out of our experience of a number of years that, if a child is to change from manuscript to cursive writing, the later he makes the change the better, up to junior high school age. Our reason for this statement is partly our observation and partly the obvious fact that, when the co-ordinations are first being made and have not become thoroughly established as automatic, there is a great deal of confusion in changing styles of writing. When, however, the co-ordinations are adequately made, the cursive writing can be developed from the manuscript without breaking down the established habits.

With respect to the question of whether manuscript writing has individuality, the best answer lies in an examination of any collection of children's manuscript writing or the manuscript writing of adults. A collection of children's manuscript writing (junior high school) is given in the Bronxville Schools Bulletin previously referred to. When a member of the Winnetka Board of Education raised this question, we simply fastened up on the walls of the room where the board met thirty or forty samples of the junior high school writing in the Winnetka schools. This demonstration completely disposed of the question, as a similar observation must to any open-minded observer.

---

[1] *Ibid.*, p. 4

[2] Julia Krenwinkel, *From Manuscript to Cursive* Winnetka, Illinois. Winnetka Educational Press, 1935.

Finally, there is the question of the legality of manuscript-writing signatures. We have taken this question up with local banks and find that the signature placed on file by the depositor is the legal signature no matter in what form it is written. Beatty took the matter up similarly in Bronxville. He writes:

> Our attorney tells us, "There is no provision of law which specifies the form of an individual signature. Accordingly there is no legal objection to the so-called 'print writing' if that is the form of the actual signature of the person using it." The Gramatan National Bank and the Bronxville Trust Company both accept without objection manuscript signatures which are mature and characteristic.[1]

In the same bulletin Beatty reproduces the signatures of pupils who use manuscript writing. An examination of these signatures gives clear evidence of their individuality and the possibility of identifying them.

SUMMARY

1. Manuscript writing, as commonly taught at the present time, appears to be somewhat slower than cursive writing until the junior high school is reached, when manuscript becomes somewhat faster.

2. Manuscript writing at the high-school level is slightly faster than cursive writing.

3. The manuscript writing of adults who have used cursive writing most of their lives but have used manuscript habitually for two years is somewhat slower than the cursive writing of adults who have used cursive exclusively In the light of the two preceding statements, it is probable that this result is due partly to the fact that the adults have had much longer experience in cursive writing through their formative years and partly to the fact that, in teach-

---

[1] Willard W. Beatty, *op. cit.*, p. 5.

ing manuscript (the results have been obtained from lower-grade teachers in comparison with cursive writers, most of whom were junior high school teachers), they have habitually used extra care in their manuscript writing, rather than to the fact that manuscript is inherently slower for adults.

4. Pupils who have used manuscript writing throughout the grades and have had no special training in the reading of cursive, read cursive after they reach high school almost but not quite so fast as do pupils who have been trained in cursive. Junior high school children, on the other hand, who have always written manuscript but have had some definite training in the reading of cursive, read cursive as rapidly as do children who have always written cursive.

5. There seems to be no sound reason for changing from manuscript to cursive. If the change is desired, however, it seems better to wait until approximately junior high school age, when the child's manuscript is thoroughly formed. At that time the transition can readily be made in six to twelve weeks with a self-instructive workbook.

6. There is no lack of individuality in manuscript writing.

7. Manuscript signatures are legal.

A CRITIQUE OF THE ELEMENTARY-SCHOOL GRADUATION EXAMINATION

DAVID SEGEL
United States Office of Education

In a recent nation-wide study by the United States Office of Education of the status of elementary-school graduating examination practices,[1] it was found that such examinations are used over a wide area, being in use either on a state-wide basis or in individual counties in thirty-seven of the forty-eight states. Although there was evidence of progress in certain of the programs, an analysis of the tests and their administration left a distinct conviction that there was room for considerable progress in most of the programs.

Even though there is not much distinct progress evident, there is a concerted effort in several parts of the country to do something about the elementary graduating examinations. The actions taken are not uniform. Some states have repealed their elementary-school examination laws. Other states that administer graduation examinations have no opportunity either to construct good examinations or to buy standardized examinations. With the present set-up of officials in state departments and the varying willingness and ability of the states to support their state departments of education, one can see that many state departments do not have any alternative to what they are doing. With the types of examinations now being used, it seems probable that in many of these states the schools would be just as well off, or perhaps better off, without examinations. For this reason it is believed that there should not be any compulsion from the standpoint of the state law. In states not able to improve their examination systems the law becomes a hindrance. However, state departments of education, through county superintendents, should have the right to set up examination systems for the schools over which they have supervisory or direct administrative authority. City superintendents certainly have assumed such powers, and the rural and small town schools are, or if they are not should be, under the supervision of the county superintendents and the state department of education.

---

[1] David Segel, *Elementary School Graduating Examinations* United States Office of Education Bulletin No 16, 1935.

It should be noted in this connection that, in many states, the state university or a teachers' college is assuming the role of the state in the preparation and the administration of elementary-school examinations. This situation occurs more often in states in which the state departments of education themselves are bound by poor examination systems or do not have any examination system. In those states where there are duplicate examination systems, the plan sponsored by the outside agency is invariably the better. To avoid duplication, the state university and other agencies should co-operate, where possible, with the state department in the production and use of the elementary-school examinations. In the meantime, until the states have the facilities to bring about such co-operation, state universities or teachers' colleges should continue their work, that is, in those cases where it appears to be good.

In those states which are making changes in their examination systems, there is evidence that the former purpose of these examinations—to determine eligibility for graduation from elementary school through checking up on the fundamental subjects—is being changed. While it is true that with reliable and valid eighth-grade examinations it is now possible accurately to measure learning in the elementary-school fundamental subjects, the philosophy of education has changed so that the emphasis on this use of the examination may be questioned. This point and its related points will be dealt with later in this article.

It was discovered that, in cases where each county or several counties in a state make up their own examinations, some counties fail as high as 40 per cent and others only 1 per cent of their eighth-grade pupils on the basis of these examinations. It is possible, of course, that differences in the rate of failure can be accounted for in part by differences in average mental capacities. No mental survey of the counties involved in this study was made. It is no doubt true that in certain eastern and western states the rural populations of various counties differ considerably in cultural and intellectual background. However, in the Middle West, where a large number of the cases studied originated, the rural population seems to be fairly homogeneous. Since the average percentage of pupils passing the examinations was 70 and most of the tests were new-type examinations, the marking thus being objective, it is thought that the greater part of the differences in failure rates is a reflection of differences in the difficulty of the examinations. If this reasoning is correct, the examinations are not fulfilling the purpose for which they are given, because whether a pupil graduates in any particular year will depend too largely on which county he happens to be living in.

A just examination for the determination of promotion of pupils to high school should be either a uniform test or a prestandardized test. For some states the construction of uniform tests throughout the state would be an improvement over the systems that they now have. However, the use of such examinations for determining graduation from the elementary school represents only a stage in the development of useful school examinations. Other types of test programs and other uses of test results offer more of value to the school than the uniform test mentioned.

Educational philosophy now holds that education should be fitted to the individual child— that the child's capacities should be a factor in his educational program. This present philosophy does not insist nearly so much as our former philosophy of education that certain portions of education be "essential" as contrasted with "nonessential." Formerly it was believed that the elementary-school program was the "essential" program and secondary education a sort of extra finish or a preparation for the professional vocations. Now the feeling is that, although certain aspects of elementary education are still "essential," the thing that makes a study "essential" has changed. Formerly "essential" studies meant only studies which are skills—reading, writing, and arithmetic. Now those studies are thought to be "essential" which contribute most to the welfare and happiness of the individual and to the betterment of the society in which he is found. Under this conception of worth-whileness it is still deemed necessary to teach the skills in the elementary school, but that all pupils should attain the same degree of skill is questioned. It depends on the pupil. If, for example, a pupil in the elementary school has attained a fifth-grade reading ability and is of an age at which he can profit from certain exploratory prevocational courses and other courses which might be more in line with his abilities and his vocational needs, these other possibilities may be essential for him.

The need in elementary schools today is not so much a set curriculum for all pupils as a consideration of the integration of the pupil and the curriculum. This problem may be divided into two parts: (1) the instructional problem and (2) the guidance or pupil-progression problem. Consider each of these two general areas.

Take the latter first. The guidance of pupils or the progression of pupils in the elementary schools consists in the problem of entrance to school, the grade placement or placement into classes during the time that the pupil is in the elementary school, and the age and other factors considered in promotion from the elementary school into some other sort of school—high school or vocational school—or in the pupil's leaving the elementary school before finishing the course.

Should age be the sole criterion of this progression? Should strict grade standards of achievement be the basis? The new philosophy and new objectives of education insist that several factors should be taken into account: educational age in relation to chronological age, achievement in relation to grade standards, achievement in relation to mental age, and achievement in relation to the length of stay expected of the pupil before his school life is over. It is in determining this progression that tests are of great value, not only to find the pupil's achievement so that it can be related to other factors, but to determine in which particular line the pupil does best. For this reason it is proposed that the present purpose of the elementary-school graduating examinations be abandoned and the effort and money which go into their production be diverted to a testing program for all elementary pupils or for the pupils in one of the lower grades. With only effort and money enough to test one class, it should be one of the lower grades if guidance or the progression of pupils is accepted as one of the prime purposes of testing in the elementary school. If, for example, test results are obtained for fifth- or sixth-grade pupils, planning of the pupils' school careers can take place. If a pupil should be progressed at a slow rate because he is young, this program can be definitely planned. If a sixth-grade pupil is fairly old for his grade and seems not to be able to progress much further in some subjects, it may be that for the remainder of his stay in school he can be placed in those classes which seem to give him the most, regardless of grade lines. In one- or two-teacher schools it is realized that only a little adjustment can be made. However, if an examination is administered in one of the lower grades instead of in the eighth grade, it is taken out of the category of a graduating examination and the teacher is given a free hand regarding the type of work necessary. To accomplish this result requires supervision, in many counties and states; but with competent supervision there is every reason to believe that the educational planning for each pupil and the work in school can be placed on the basis of what is best for the individual child. Of course, without supervision a testing program, no matter in what grade, may be of little value.

The other problem confronting the administrator of elementary education is the method of instruction. The elementary-school graduating examination has been used as a sort of measuring rod of teaching efficiency. Tests should be used, rather, for showing the teacher just what types of material her pupils can master and what types they cannot master, so that she can change her emphasis—or, in other words, change her instruction—to meet the needs of the class. Further, if the tests are sufficiently diagnostic, they can be used with individual pupils so that a teacher can change her instructional direction, not only for the class, but also for the individual child. A test given at the end of the eighth grade is of very little value because the results cannot be used directly. For this reason also it is recommended that examinations be given during the elementary-school course, when the results can be used directly in instruction.

It should be emphasized that, in general, tests should be used as tools in instruction or as signposts for educational planning. Ideally, the use of tests should vary with the ability of teachers and the amount of supervision. Tests and measurements should be tools, the results of which should be closely related to the school life of the individual child. Tests should tend to free the teacher so that she can teach what seems best for youngsters, rather than to fetter her to a crystallized program. A testing program which has as its purpose educational planning for the individual and aiding in instruction means that the whole school program should be considered, from the first grade through the eighth, and that, if only one grade can be tested, it should be a grade which will show the greatest possibilities of return for the purposes stated.

Graduation from the elementary school should rest more on whether the elementary school can continue to give the pupil something of value than on whether the child has attained a set standard. Graduation should be the result of a planned educational program for the individual pupil, consideration being given not only to the elementary-school possibilities but to the possibilities of other schools. In some areas the elementary school should, despite its name, expand its offerings so that some of its children can, with profit, remain a longer period of time. Examinations, including statewide examinations, are needed more than ever in a flexible promotion scheme in order to guide the individual aright.

THE EFFECT OF ADAPTING READING MATERIALS TO SERIOUSLY RETARDED PUPILS

HAROLD H. POSTEL
Moseley School for Boys, Chicago, Illinois

Teachers dealing with seriously retarded pupils have long been of the opinion that reading materials, subject matter, and vocabulary, as found in primary textbooks in reading, are poorly adapted to the needs of pupils in special divisions, subnormal rooms, opportunity rooms, and special schools.

The average pupil in such divisions is retarded by approximately three to four years. His intelligence quotient is likely to be 75; chronological age, fourteen years; and grade level, III B. He is somewhat more sophisticated than the child who has progressed at the normal rate. Having a slight inferiority complex, he compensates by assuming the manner, tastes, and interests of the adult. Lacking in patience, he does not see the value of learning to read and the deferred reward that it will bring through increased financial remuneration, enjoyment of leisure, and insight into the problems concerning himself and his group.

The extreme cases are those of pupils who are fourteen and fifteen years of age and still reading at the first-grade or the second-grade level. The textbooks in reading which they are given to study are juvenile in content and have been used repeatedly in all the classes which the pupils have attended. The teachers using this material secure responses from the pupils such as the following: "We've read that in Miss Blank's room." "I've read that a hundred times " "Who wants to read that again?" "That's baby stuff."

What is urgently needed for the special class (and perhaps for a large number of pupils struggling in regular classrooms) is reading material of interest to the pupil of more advanced years, whose tastes in literature resemble those of the adult and whose reading ability is at the third-grade level or below.

With these facts in mind, Mrs. Effie Truax, Miss Helen Latchford, Mrs. Constance Lamphear, and Miss Evelyn Cronin, four teachers in the Moseley School for Boys, whose pupils ranged in ability from the first through the fourth grade, decided to attempt an experiment in writing stories which would be more acceptable than the material found in lower-grade textbooks. The vocabulary was kept at the third- and fourth-grade level. In most cases the stories were simplified versions of selections which have proved to be popular among upper-grade and high-school children. The topics covered the activities of older children and adults and included action, drama, adventure, transportation, sports, and other features.

The plan was to present these stories in mimeographed form, at the rate of one or two pages a day, and to note whether more interest was aroused and learning to read was accelerated in greater degree than usually occurs through the use of standard textbooks. The stories were placed on paper 8½ by 11 inches in size, with no "baby pictures" and no indication of grade level to humiliate the pupil. Eighteen stories were presented, the titles of which indicate, in most cases, the nature of the contents:

A Visit to a Coal Mine
Kenny [story of a boy who helped the police]
The Picnic in the "Dolphin" [adventure in a boat]
A Record Run on the Railroad
Aesop's Fables
The Greatest Danger of Sir Launcelot
The Owl
Story of a Jockey
The Canadian Mounted Police
Hansel and Gretel
The Blind Setter
Aeroplane in the Fog
Will Scarlet and Robin Hood
The Lame Duck [high-school sport story]
The Honeybee
King Tut's Grave
Hercules
Sindbad the Sailor

The stories were given daily over a three-month period in addition to the regular reading. No motivation was attempted since it was desired to determine whether the new material was self-motivating The difficult passages were read orally in order that the children might not become discouraged. In some cases the teacher read a few paragraphs, and the pupils finished the reading independently. There was little or no drill on words since we wished to ascertain whether the pupils' interest would be aroused to such an extent that they would make serious efforts to read this new material.

Standardized tests were administered at the beginning and at the end of a three-month experimental period by Mrs. Leota Boetticher, of the Child Study Department of the Chicago Board of Education. The Kuhlmann-Anderson Intelligence Test was used to secure the intelligence quotients; the Stanford Reading Examination was used in measuring word recognition and paragraph meaning.

The number of pupils was too small to allow the organization of a control group. The experiment cannot therefore be considered completely scientific or conclusive. It was believed, however, that testing would give some insight into the effectiveness of the material that had been prepared. The teachers observed the reactions to each type of story and the general interest taken in each topic.

The results of the testing, as tabulated by the staff psychologist, are shown in Table I. Only the records of those pupils are given who were present during the entire three-month period and who took all the tests. Complete results were secured from the psychologist on twenty-eight pupils.

Although twenty-eight cases is a small number on which to base positive conclusions, the results indicate that interest was aroused by the special material and that the process of learning to read was accelerated in spite of certain shortcomings in the material. For example, the physical makeup of the mimeographed page is not so attractive as that of the printed page, and there were no illustrations or other devices used which tend to secure interest on the part of the pupil. Notwithstanding these drawbacks, pupils with an average intelligence quotient of 71, an average chronological age of twelve years and four months, and a reading grade of 2.6 were able, during the three-month reading period, to make an advance of six months on paragraph meaning—to a grade level of 3.2. Theoretically, instead of a six-month growth, .71 of a three-month growth, or two months of progress, would be expected. On the other hand, the expectation would be that pupils twelve years and four months of age with an intelligence quotient of 71 would have attained a grade level of 4.5 (.71×6.3). The reading material merely enabled the pupils to approach the level of their capacity.

In word meaning these pupils made only the progress that would be expected of children of average intelligence working at their

TABLE I

RESULTS ON KUHLMANN-ANDERSON INTELLIGENCE TEST AND READING GRADE ON STANFORD READING EXAMINATION OF TWENTY-EIGHT PUPILS IN MOSELEY SCHOOL WHO USED SPECIALLY PREPARED READING MATERIALS

Pupil	Chronological Age February, 1936	Kuhlmann-Anderson Test, February, 1936		Reading Grade					
				February 6, 1936		May 14, 1936		Progress in Months	
		Mental Age	Intelligence Quotient	Paragraph Meaning	Word Meaning	Paragraph Meaning	Word Meaning	Paragraph Meaning	Word Meaning
1	8- 8	8-10	102	2.8	2.6	3.7	3.4	9	8
2	10- 2	7- 1	70	1.6	1.0	2.0	1.7	4	7
3	10- 3	8- 2	80	2.6	2.5	2.7	2.5	1	0
4	10- 8	7- 1	66	2.5	2.7	2.7	3.0	2	3
5	10-10	7- 5	68	1.5	1.7	1.6	1.4	1	− 3
6	10-10	8- 5	78	2.8	2.6	4.9	4.1	21	15
7	10-10	9-10	91	2.7	2.9	3.0	2.9	3	0
8	10-11	9- 5	86	0.0	2.9	1.9	1.8	19	−11
9	11- 3	9- 4	83	4.9	4.6	4.7	4.9	− 2	3
10	11-10	8- 6	72	2.8	2.6	2.9	2.6	1	0
11	12- 0	7-11	66	1.6	1.2	1.9	1.6	3	4
12	12- 0	8- 4	69	3.2	2.6	2.3	3.2	− 9	6
13	12- 1	8- 9	72	3.7	3.0	5.2	3.2	15	2
14	12- 2	9- 0	74	3.4	3.1	4.3	4.0	9	9
15	12- 4	7-11	64	2.9	2.6	3.3	2.6	4	0
16	12- 7	8- 6	68	2.5	2.1	4.3	3.2	18	11
17	12- 7	9- 3	74	2.8	3.4	3.7	3.6	9	2
18	13- 0	8- 2	63	2.0	2.0	2.6	3.2	6	12
19	13- 0	8- 2	63	2.7	2.2	3.6	3.3	9	11
20	13- 2	8- 8	66	2.8	2.6	2.5	2.6	− 3	0
21	13- 3	9-10	74	2.6	2.8	3.3	2.6	7	− 2
22	13- 6	6- 5	48	1.3	1.0	1.7	1.4	4	4
23	14- 0	9- 2	65	2.8	2.6	3.5	2.6	7	0
24	14- 4	12- 2	85	2.0	2.6	2.4	2.4	4	− 2
25	14- 6	8- 9	60	2.9	4.8	3.3	3.8	4	−10
26	14- 8	9- 6	65	3.2	3.0	4.4	4.1	12	11
27	15- 3	9- 1	60	4.0	3.4	4.4	4.1	4	7
28	15- 3	9- 5	62	3.3	2.6	3.7	3.2	4	6
Average	12- 4	8- 8	71	2.6	2.6	3.2	3.0	6	3

proper grade level. The lesser advance in word meaning may indicate that the children read the material and secured the meaning in spite of inability to understand words when isolated from context. Interest in the reading may have carried them along with a resultant greater progress in paragraph than in word meaning.

The consensus among the four teachers who conducted the experiment was that the children's interest was greater than their interest in ordinary textual material at the third-grade level. Attention was greater and discipline less difficult during the reading period, although the school cares for truant and delinquent boys. There was an eagerness shown for the following day's lesson by anticipating what the next pages would contain. This latter fact may indicate the advantage to be derived by giving the pupil a page or two at a time, rather than giving him an entire story or an entire book. The attention is not dissipated by looking through a large number of pages.

The comments and conclusions made by the teachers conducting the experiment were as follows:

1. Our main academic problem in the ungraded class is securing reading material adapted to the ability and to the interests of the pupils. We need reading matter suitable for boys who are advanced chronologically and seriously retarded in reading.

2. It is necessary at first to provide the retarded pupil with reading content that he enjoys, not what the teacher thinks he wants or what she believes he should have.

3. It was found that the stories of greatest appeal are those of adventure, daring, physical prowess, sports, feats of skill by the engineer, police, and other modern workers

4. Factual material, concerning industry, nature study, geography, history, unless clothed in a plot involving activity, bravery, etc., fell in the lower half of the preference scale.

5. Learning of paragraph meaning proceeds at a faster rate than learning of word meaning when the materials presented are within the range of the child's dominant interests.

6. It is easier to secure the interest and maintain the attention of retarded pupils with adapted material than it is when using material which has been written for seven- and eight-year-old children.

SELECTED REFERENCES ON PRESCHOOL AND PARENTAL EDUCATION

FLORENCE L GOODENOUGH
University of Minnesota

This bibliography covers the period from December 1, 1935, to December 1, 1936. The plan of selection is the same as that used in previous years.

Technical and Experimental Studies

114 Baruch, Dorothy W, Risser, M. E. and Joseph C. "An Experiment with Posture Work in a Nursery School: A Preliminary Report," *Child Development*, VI (December, 1935), 269–76.

By the utilization of playground apparatus already in use and the devising of new song dramatizations, activities making for good posture and muscle development were popularized among nursery-school children.

115. Blatz, W. E., Allin, Kathleen Drew, and Millichamp, Dorothy A. *A Study of Laughter in the Nursery School Child.* University of Toronto Studies, Child Development Series, No. 7. Toronto: University of Toronto Press, 1936. Pp. 32

On the basis of observations of conditions arousing laughter in children, a new theory of the cause of laughter is suggested.

116. Blatz, W. E., and Griffin, J. D. M. *An Evaluation of the Case Histories of a Group of Preschool Children.* University of Toronto Studies, Child Development Series, No. 6. Toronto: University of Toronto Press, 1936. Pp. 24.

A statistical comparison of the case histories of sixty "problem" and sixty "non-problem" children in the St. George's School for Child Study showed that faulty environmental conditions and poor home training were much more frequent in the former than in the latter group.

117. Cockrell, Dura-Louise *A Study of the Play of Children of Preschool Age by an Unobserved Observer* Genetic Psychology Monographs, Vol. XVII, No 6 Worcester, Massachusetts· Clark University Press, 1935. Pp 377–470.

An intensive study of the play of six children by a new adaptation of the observational method

118. COLBY, MARTHA GUERNSEY, "Instrumental Reproduction of Melody by Preschool Children," *Pedagogical Seminary and Journal of Genetic Psychology*, XLVII (December, 1935), 413-30.

The attempt to give preschool children specialized instrumental training costs more patience and effort than results justify, although for the individual child it may mean the beginning of an interest in, and appreciation of, instrumental music. The same amount of effort applied to vocal acquisition of folk songs and games would produce greater results because it would capitalize on a natural response and an easier technique.

119. DENNIS, WAYNE. "Laterality of Function in Early Infancy under Controlled Developmental Conditions," *Child Development*, VI (December, 1935), 242-53.

Laterality preferences were found to develop in a pair of fraternal twins although all environmental conditions tending to develop preference were controlled as far as possible. These preferences were different in the two infants.

120. GESELL, ARNOLD, and HALVERSON, HENRY M "The Development of Thumb Opposition in the Human Infant," *Pedagogical Seminary and Journal of Genetic Psychology*, XLVIII (June, 1936), 339-61.

The successive stages in the development of thumb opposition are described and illustrated by photographs.

121. HARRIS, ESTHER K "A Study of the Overt Attention of Young Children during Clinical Examinations," *Pedagogical Seminary and Journal of Genetic Psychology*, XLVIII (June, 1936), 480-84.

Describes the use of the Becker time-marker in connection with a standardized record form for the study of overt signs of attention during mental tests.

122. HATTWICK, BERTA WEISS. "Interrelations between the Preschool Child's Behavior and Certain Factors in the Home," *Child Development*, VII (September, 1936), 200-226.

A statistical comparison of certain factors in the home management of 335 preschool children with the behavior of the children at nursery school

123. HUBBARD, RUTH M "A Study of the Reliability and Validity of the Bühler Infant Scale," *Pedagogical Seminary and Journal of Genetic Psychology*, XLVII (December, 1935), 361-84.

Ratings of forty-four infants on the Bühler infant scale were found to be fairly reliable, but for individual predictions it is recommended that at least two tests be given.

124. HURLOCK, E. B., and MCHUGH, G. "Use of the Biographical Method in the Study of Motor Co-ordination," *Child Development*, VII (September, 1936), 161-68.

A tabulation and comparison of the age of appearance of various items of motor development reported in child biographies.

125. JENNINGS, FLORENCE. "Preferences of Preschool Children for Specific Geometric Figures," *Child Development*, VII (September, 1936), 227–35.

Little relation was found between children's preferences and theoretical standards of aesthetic value.

126. JERSILD, ARTHUR T., and BIENSTOCK, SYLVIA F. *Development of Rhythm in Young Children.* Child Development Monographs, No. 22. New York: Teachers College, Columbia University, 1935. Pp. vi+98.

An experimental study of the development in preschool children of ability to keep time to the accompaniment of music.

127. JERSILD, ARTHUR T., and HOLMES, FRANCES B. *Children's Fears.* Child Development Monographs, No. 20. New York: Teachers College, Columbia University, 1935. Pp. xvi+356.

A monograph presenting the results of a series of studies, made over a period of three years, in which observations of children, interviews with parents and with children, questionnaires, and experimental studies were analyzed for indications of developmental trends and causal factors in the fears of children

128. JERSILD, ARTHUR T., and HOLMES, FRANCES B. "Some Factors in the Development of Children's Fears," *Journal of Experimental Education*, IV (December, 1935), 133–41.

A follow-up study of the subjects of an earlier investigation of fear, in which the changes in type of fear with age are analyzed.

129. JERSILD, ARTHUR T., and MARKEY, FRANCES V. *Conflicts between Preschool Children.* Child Development Monographs, No. 21. New York: Teachers College, Columbia University, 1935 Pp. x+182.

An observational study of aggressive, resistant, and hostile acts exhibited by children in their dealings with one another during play. Analyzes such factors as frequency and causes of children's conflicts, the roles played by different children in altercations, and the attitudes of teachers toward the conflicts.

130. JOËL, WALTHER. "'Behavior Maturity' of Children of Nursery School Age," *Child Development*, VII (September, 1936), 189–99

Describes a rating scale to be used for judging the "behavior maturity" of nursery-school children.

131 JOHNSON, BUFORD. "Variations in Emotional Responses of Children," *Child Development*, VII (June, 1936), 85–94.

The degree and the character of an emotional response is affected by many variables inherent both in the child and in the situation.

132. KEY, CORA B; WHITE, MARGARET R., HONZIK, MARJORIE PYLES; HEINEY, ADELIA BOYNTON, and ERWIN, DORIS. *The Process of Learning To Dress among Nursery-School Children* Genetic Psychology Monographs, Vol. XVIII, No 2 Worcester, Massachusetts. Clark University Press, 1936. Pp. 67–164.

Describes the development of a scale for measuring ability in dressing and analyzes some of the major variables affecting the rate at which skill in this process is attained.

133. McCarthy, Dorothea. "Children's Feeding Problems in Relation to the Food Aversions in the Family," *Child Development*, VI (December, 1935), 277–84.

Tendencies toward strong food preferences and aversions are found to decrease with age and indifference toward food in general to increase. No evidence is found for the popular supposition that children's food dislikes have their origin in the example and suggestion of other members of the family.

134. Mallay, Helena. "Growth in Social Behavior and Mental Activity after Six Months in Nursery School," *Child Development*, VI (December, 1935), 303–9.

Growth, presumably in excess of that to be expected through maturation alone, was evidenced after six months in nursery school in the number and duration of social contacts, in the use of successful techniques of social contact, and in the time spent in constructive, active use of materials.

135. Mallay, Helena. "A Study of Some of the Techniques Underlying the Establishment of Successful Social Contacts at the Preschool Level," *Pedagogical Seminary and Journal of Genetic Psychology*, XLVII (December, 1935), 431–57.

Sociability, as measured by the number of social contacts made, increases with age Techniques of successful social adjustment may be learned by experience even at the two-year level.

136. Mott, Sina M. "The Development of Concepts," *Pedagogical Seminary and Journal of Genetic Psychology*, XLVIII (March, 1936), 199–214.

Describes a scale for measuring the amount of activity and the extent of awareness of environment shown in the drawings of 138 children. Scores on this scale are then correlated with scores on measures of intelligence, as shown through drawings, and on measures of personality adjustment to determine whether there is a definite relation between a personality trait and its overt expression. A moderately high correlation (.769) with the Marston scale seems to indicate that such a relation does exist.

137. Nelson, Virginia L. "An Analytical Study of Child Learning," *Child Development*, VII (June, 1936), 95–114.

Number of errors is more significant than time as a measure of learning. Early stages of learning are characterized by a trial-and-error method, which is later replaced by a rational organization of material if the task is of a rational character.

138. Page, Marjorie Lou. *The Modification of Ascendant Behavior in Preschool Children.* University of Iowa Studies in Child Welfare, Vol XII, No. 3. Iowa City, Iowa: University of Iowa, 1936. Pp. 70.

Through the introduction of a training schedule designed to promote self-confidence, it was found possible to bring about a substantial increase in qualities of leadership among nursery-school children.

139. RICHARDS, T. W. "Gross Metabolic Changes Characteristic of the Activity of the Neonate," *Child Development*, VI (December, 1935), 231–41.

An investigation of the organic determinants of variations in infant behavior. No one index of physiological function seems highly related to bodily activity.

140 RICHARDS, T. W., and IRWIN, ORVIS C. "The Use of the Clinical Method in Experimental Studies of Behavior," *Journal of Abnormal Psychology*, XXX (January–March, 1936), 455–61.

An inquiry into factors influencing judgments of the plantar response in infants

141. ROOS, MARY M. "Variations with Age in Frequency Distributions of Degrees of Handedness," *Child Development*, VI (December, 1935), 259–68.

A logarithmic ratio for determining the distribution of handedness is developed. The curve of handedness distribution, based on this ratio, is found to be normal when tapping and strength of grip are used to measure the degree of handedness but not when the number-marking test is used.

142. SELTZER, SERAPHINE S. "A Measure of the Singing and Rhythmic Development of Preschool Children," *Journal of Educational Psychology*, XXVII (September, 1936), 417–24

Describes the construction of scales for measuring the musical performance of preschool children

143. SKEELS, HAROLD M. "Mental Development of Children in Foster Homes," *Pedagogical Seminary and Journal of Genetic Psychology*, XLIX (September, 1936), 91–106.

Children placed before the age of six months in foster homes of superior or average cultural status tested higher at the age of eighteen to forty-eight months than would be expected on the basis of their true parentage

144. SONTAG, LESTER WARREN, and WALLACE, ROBERT F. "The Movement Response of the Human Fetus to Sound Stimuli," *Child Development*, VI (December, 1935), 253–58.

Records of the sensations of fetal movements in response to auditory stimuli applied to the abdominal wall as reported by the mothers show that the response to sound stimulation is detectable about the thirty-first week of intrauterine life and increases in magnitude as the fetus nears term

145. THOMPSON, HELEN "The Development of Upright Posture," *Journal of Experimental Education*, IV (December, 1935), 103–11.

A description of the development of upright posture, illustrated with sketches showing the different developmental stages in the achievement of the prone, sitting, and standing positions

146. UHRBROCK, RICHARD STEPHEN "Words Most Frequently Used by a Five-year-old Girl," *Journal of Educational Psychology*, XXVII (February, 1936), 155–58

Frequency of occurrence of different common words used by a five-year-old girl in dictating twenty-four thousand words into an Ediphone during the six weeks preceding her fifth birthday.

147. Van Alstyne, Dorothy. "Relaxation and Some Related Factors: An Exploratory Study Made in Five Nursery Units," *Child Development*, VI (December, 1935), 310–21.

Individual differences in sleep habits already established seem to be more important in influencing the character of the relaxation period than such factors as amount of activity during play period, nature of play activities, amount of food consumed, location of play activities, etc.

148. Wenger, M. A., Smith, Josephine M., Hazard, Charles, and Irwin, Orvis C. *Studies in Infant Behavior. III.* University of Iowa Studies in Child Welfare, Vol. XII, No. 1. Iowa City, Iowa: University of Iowa, 1936. Pp. 206.

The first study, "An Investigation of Conditioned Responses in Human Infants," indicates that some forms of conditioning can be established in the newborn infant but that the responses are likely to be unstable. The second study is a determination of the relative brightness values for the newborn infant of hues of red, blue, and green. In the third study, "Fluctuations in Skin Resistance of Infants and Adults and Their Relation to Muscular Processes," little relation was found between skin resistance and various criteria of sleep in either infants or adults. The fourth study, "The Relation of Reflex Conduction Rate in the Patellar Reflex to Age in Human Beings," indicates that the reflex conduction rate increases rapidly from birth to the sixth year and more gradually thereafter. The fifth study, entitled "Qualitative Changes in a Vertebral Reaction Pattern during Infancy," is a motion-picture study of the changes with age in the patterns of curvature of the vertebral axis during head-downward suspension.

149. Williams, Harold M. "A Factor Analysis of Berne's Social Behavior Patterns in Young Children," *Journal of Experimental Education*, IV (December, 1935), 142–46.

A factor analysis of social-behavior patterns showing a clustering of traits around two axes, one of which may be called a general factor of approach-withdrawal, the other a general factor of ascendance-submission.

150 *The Young Child in the Home.* Report of the Committee on the Infant and Preschool Child, John E. Anderson, Chairman. Section 3, Education and Training, White House Conference on Child Health and Protection. New York: D. Appleton-Century Co., Inc., 1936. Pp. xii+416.

A survey of home conditions and facilities and parent practices in child care and training in three thousand representative American homes. Includes a section on the negro child.

Nontechnical Books and Articles Primarily for Parents Teachers, and Workers in the Field of Parent Education

151. Alpert, Augusta. "Educational Group Therapy: An Experiment," *Progressive Education*, XIII (March, 1936), 170–73.

An account of the manner in which four thumb-sucking children were cured of the habit through group therapy.

152. ARBUTHNOT, MAY HILL. "Telling Stories and Reading Aloud to Young Children," *Childhood Education*, XII (May, 1936), 347–51.

A discussion of the techniques of story-telling.

153. BACMEISTER, RHODA. "Nature Study with Young Children," *Parents' Magazine*, XI (April, 1936), 22, 23, 72–75.

How to teach a child to enjoy nature.

154. BENNER, ROBERT W. "Sex Education," *Hygeia*, XIV (March, 1936), 220–21.

Specific suggestions about what to tell the child when he begins to ask questions about sex.

155. BRADBURY, DOROTHY E. "The Case for Nursery Schools," *Childhood Education*, XII (June, 1936), 406–9.

A review of research in preschool education showing the advantages to the child of attendance at nursery school.

156. CUSHING, HAZEL M. "The Federated Block Plan: Critique of the Plan from the Standpoint of Parent Education," *Parent Education*, II (January, 1936), 6–7.

Provided parents are given beforehand some definite training in acceptable educational procedures with young children, such neighborhood organization as the federated-block plan suggests would do a great deal to interest parents in child study and to teach them desirable techniques of guidance and management.

157. FEDIAEVSKY, VERA, in collaboration with PATTY SMITH HILL. *Nursery School and Parent Education in Soviet Russia.* New York: E. P. Dutton & Co., 1936. Pp. xx+266.

An account of aims, accomplishments, and methods used in the care and training of infants and preschool children in the Soviet Union with particular stress on methods of co-ordinating the work of the public crèche with the education of parents in proper methods of child care.

158. FOSTER, ROBERT G. "The Federated Block Plan: A Proposal for the Dissemination of Parent Education and Preschool Facilities," *Parent Education*, II (January, 1936), 4–6

In order to extend to a greater number of parents the advantages of nursery-school care of children without the expense ordinarily involved and, at the same time, to train parents in scientific child care, a plan is suggested whereby six or eight families living in the same neighborhood can arrange to rotate the morning care of the children among the mothers so that one mother will care for all the children one day a week and will be free the remainder of the week.

159. HAXTON, JENNIE N., and WILCOX, EDITH *Step by Step in the Nursery School.* Garden City, New York: Doubleday, Doran & Co., Inc., 1936. Pp. xiv+224.

Day-by-day case studies of behavior problems shown by nursery-school children, with accounts of the methods by which the difficulties were handled.

160. KELLEY, EDNA EWING. "Uncle Sam's Nursery Schools," *Parents' Magazine*, XI (March, 1936), 24, 25, 48-49.

An evaluation of the work done by the emergency nursery schools in the fields of preschool education and parent education

161. LANGDON, GRACE "The Federated Block Plan: Critique of the Plan from the Standpoint of Child Welfare," *Parent Education*, II (January, 1936), 7-8.

The greatest weakness of the federated-block plan is that the welfare of the children is not adequately safeguarded The welfare of the children and their opportunities for development, not the benefits accruing to the parents, should constitute the point of departure of any such plan

162. LEEPER, MARY E. "Childhood Education in Other Countries," *Childhood Education*, XII (February, 1936), 197-200.

A glimpse of preschool and elementary education as it exists in different countries of the world Based on reports given at three international conferences held in the summer of 1935 in Geneva, Brussels, and Oxford.

163. LOMBARD, ELLEN C. *Parent Education Opportunities.* United States Office of Education Bulletin No. 3, 1935 Pp. viii+54.

Describes the activities of agencies that have had parent-education programs since 1930 and indicates the opportunities provided by each for training future workers in the field

164. SCHULTZ, GLADYS DENNY. "When Toilet Training Lapses," *Parents' Magazine*, XI (February, 1936), 25, 76-77.

Breakdowns in toilet training in the child under three are temporary phases of the development process and should be accepted as such by parents Retraining and not emotional concern is the solution to the problem

165. WAGONER, LOVISA C. *Observation of Young Children.* New York. McGraw-Hill Book Co , Inc., 1935. Pp. x+298

An outline for observation designed to direct the student in work with young children Prefaced by a discussion of the functions of the nursery school

166. ZABRISKIE, LOUISE. *Mother and Baby Care in Pictures.* Philadelphia: J. B. Lippincott Co , 1935. Pp. x+196.

An excellent description of prenatal and postnatal care of the mother and child. The book is well illustrated with pictures of correct methods of care as practiced in the various maternity centers of the country.

Educational Writings

REVIEWS AND BOOK NOTES

Equalizing the financial burden of the maintenance of public schools in the United States.—A companion volume[1] to the report developed under the auspices of the National Survey of School Finance (Paul R. Mort, assisted by the Research Staff, *State Support for Public Education.* Washington: American Council on Education, 1933), which dealt primarily with the issues of school support within the several states, brings together the results of a series of investigations that were focused on the problems having to do with federal aid to public education. The researches underlying these publications, whether carried on by Mort or his associates, reveal technical skill of a high grade and unusual insight in dealing with problems that do not lend themselves easily to objective analysis. The volume under review is one of a series of publications of researches and surveys relating to school support that have had their origin in a dissertation for the doctorate (Paul R. Mort, *The Measurement of Educational Need.* Teachers College Contributions to Education, No. 150. New York: Teachers College, Columbia University, 1924).

The first of the eleven chapters summarizes and discusses the findings of the studies that comprise the present volume. The reader searching for a "well-rounded picture of the federal support problem" (p. xv) will find in chapter i an exposition of the principles of school finance as they relate to federal support, the foundation program for schools, the problem of central control, and the possible scope and uses of federal aid. The following two short chapters present the experiences of the national government in aiding education and the bases for establishing a permanent policy of federal aid in equalizing educational opportunity throughout the country. Chapters iv and v indicate the manner in which the measures of need already developed were refined for use in projecting a plan for federal aid and for establishing an index of educational need that could be used for comparing states. The methods developed for making adequate adjustments for variations in living costs, for differences in costs of schools in rural and urban areas, for differences in costs of elementary and secondary schools, and for variations in population groups are likewise presented. Educational need is based on the cost of a given educational program carried on under current practices within the states.

---

[1] *Federal Support for Public Education:* A Report of an Investigation of Educational Need and Relative Ability of States To Support Education as They Bear on Federal Aid to Education. Made under the direction of Paul R. Mort and under the auspices of Columbia University Council for Research in the Social Sciences. New York: Teachers College, Columbia University, 1936. Pp. xvi+334.

The underlying technical researches which have to do with measuring the differences in the ability of local governments and states to support public schools are analyzed in chapters vi and vii. It is shown that all the methods that have been proposed or used in measuring the relative ability of states to maintain systems of education are inadequate for purposes of distributing federal money. Yet the author sensibly points out that in spite of limitations the most acceptable plan must be used until a better scheme is devised. In this work the relative ability to maintain schools was scaled in terms of the tax-paying ability of governmental units as measured under an application of a modern tax system to each state.

Having established a relative index of educational need and the ability of states to maintain schools, the author proceeds in chapter viii to define the program of education on which aid is to be distributed. From among the possible programs it was decided to build one by selecting from thirty states for which adequate data were available "those communities which have the same ability to support schools as the average community in the country would have should the present defects in state tax systems be remedied. The experience of these communities is taken as an index of what could be established as a national foundation program if the financial houses of the states were put in order and if the federal government were to assume responsibility for equalizing the burden of education among states" (p 209).

The three remaining chapters are devoted to discussions dealing with patterns of financial aid that might be used for distributing federal money. In these pages are considered the relative merits of the small- and the large-fund plans and combinations of these plans. Federal aid for rural building, for adult education, for higher education, for scholarships, for indigenous peoples, and the territories are also considered in their relation to the general pattern proposed for distributing federal aid to states. The Appendix, which is divided into eight parts, preserves the more technical aspects of the studies underlying the volume for those students who are primarily interested in this field of endeavor.

The plan proposed in this study calls for an initial annual appropriation of $300,000,000 by the federal government for the support of public education. It should be distributed "so as to provide to states a flat grant of $6 per weighted pupil unit, the equalization of a $15 foundation program, and a guaranty of 20 per cent of ultimate aid under a really defensible program" (p. 28). No one would expect that a problem so extensive and complex as this of federal aid to education could be solved in its initial developments without having students of education raise some questions The proposed plan might well be accepted and urged for adoption by the federal authorities for the initial equalization of the school-support burden in the United States. It must be fully realized, however, that a continuous study of the underlying premises of the plan must be carried on and that practices resulting from the initial grants must not become so intrenched as to supply nourishment to the maintenance of educational practices in the several states which now have no educational, economic, or sociological justification. In the spending of $300,000,000 for equalizing educational opportunity in the United States, the federal government could well afford to appropriate the necessary money for the further study of the problem of federal and state support of schools.

One may question the desirability of distributing federal aid for constructing rural schools except after a most searching investigation of all the problems relating to rural education The rural school, the district organization for the maintenance of schools, transportation, and the problems of school organization are all interdependent. Observations on present federal aid to localities for schoolhouses leads to the belief that many weaknesses in educational practices are thereby to be intrenched for another generation or two.

To distribute federal aid according to a measure of need developed from current school practices, which involve the types of secondary schools and elementary schools prevalently found, the thousands of small uneconomical school districts, the large number of unqualified personnel, and the like, may tend to slow up the reforms which were being brought about by local economic distress during the depression. May it not be necessary to establish some pattern of modern school organization and practice as the basis for measuring need, such as was applied in the measure of tax-paying ability?

In a recent discussion of the problems of federal aid to schools ("A Program for Federal Support of Education," *Elementary School Journal*, XXXVII [October, 1936], 81–88), it was shown that the burden of child care and education in the states differs markedly. It was pointed out that the number of children per thousand of adults is so unlike in the states as to produce a demand for education that could not be adequately equalized through the plan of support proposed in Mort's volume, and it was held that any proposal of federal aid "should be heavily weighted in favor of those areas where the birth-rate is the highest, where the burden of child care is the greatest, where the level of living is the lowest, where the home has least to contribute to cultural and intellectual growth, and where economic resources are the most restricted."

FRED ENGELHARDT

UNIVERSITY OF MINNESOTA

Some suggestions about activities.—A Gordon Melvin has written a book[1] worth reading A member of the education staff of the College of the City of New York, Melvin has been one of the more prolific writers in the field of the new education. An enthusiastic exponent of progressive education, he has attempted to do for the practice of the newer educational methods what Dewey and Kilpatrick have done for the underlying philosophy. Realizing that a philosophy is sometimes difficult to apply in the absence of concrete examples, Melvin has been gathering together the examples. His several books have not always been entirely even in quality, and some of his earlier volumes could be criticized for the tendency to formalize descriptions of procedures which were presented as desirable examples of newer educational thought and action. In this latest volume the author has carefully avoided this fault.

---

[1] A. Gordon Melvin, *The Activity Program*. New York: Reynal & Hitchcock, 1936. Pp. x+276. $2.90.

There is little doubt that the progressives' bitter criticism of the old formalized curriculum has led to some misunderstanding regarding the place of prior planning in the program of the new education. In his earlier chapters Melvin has defined clearly and objectively the relations of the teacher, the curriculum, and the child in the more successful progressive schools. The author states the case very well when he says:

> The teacher is a mediator between the child and the curriculum. That is so whether the teacher is working with a well-developed and fairly definite curriculum or with a curriculum which she carries in her head and refuses to write down No teacher can teach without some notion of the goals which she regards as suitable for children. There is a certain meeting ground between the two extremes of child-centered and curriculum-centered education. If child-centered education begins with the spontaneous offerings of the children, it nevertheless develops in the direction of some curriculum or other. If not, school life would become like the aimless outdoor summer play of children who have no teacher guide. On the other hand, the most formal, subject-matter curriculum must awaken a certain degree of child activity or it never succeeds. In other words, teaching in the modern school is less a matter of curriculum and more a matter of method [p. 40].
>
> The teacher . . . . has been active in preparing an environment which abounds with various stimuli to activity. She is active in awakening needs [p. 123]

And further:

> . . . the teacher actually imbues the curriculum with the values of her own personality The teacher herself sets the attitudes and the atmosphere of learning and endows the curriculum with values. What values the teacher accepts by authority or consent or imagination must ever determine the life of the school . . .
>
> Those who are concerned with writing curriculum should do all in their power to see that it appears in the form of some set of goals, each of which appears intrinsically worth while to the learner beholding it. . . . . The curriculum must list values which appear as things which children of the age for which they are intended actually want [pp. 75–77]

Melvin has had the further courage to describe and criticize the work of schools which are posing as progressive but which are actually developing what he terms "the false project." His criticisms are sound and fundamental. It is healthy to find a defender of the new education with the courage to analyze and to reject that which poses as progressive without a sincere understanding of the psychological values inherent in the new educational procedures.

Much of this new volume is made up of specific analyses of projects and activities, in which the objectives are carefully listed and the outcomes evaluated.

While these may not appeal to the educational theorist, they should prove of real value to the classroom teacher who is struggling for a clear understanding of the newer educational concepts in terms of her own day-to-day experiences.

In *The Activity Program* Melvin has made a valuable contribution to the literature of the new education. It is a volume which should be read with interest by students of education, and it should prove of more help to prospective teachers than a majority of the available books touching on progressive education.

WILLARD W. BEATTY

DIRECTOR OF EDUCATION
UNITED STATES OFFICE OF INDIAN AFFAIRS

History in the middle grades.—In revising her earlier work on *Teaching American History in the Middle Grades of the Elementary School*, Miss Kelty has prepared a volume[1] which merits a place for itself, not as a revision, but as a new and welcome contribution to the field for which it is written. The book should be added to the library of every elementary-school and junior high school teacher of the social studies This reviewer would also include much of Part I, which is devoted to "The Psychological and Social Foundations," in a list of recommended readings for senior high school teachers.

This book might easily be reviewed in superlatives, so thoroughly and painstakingly has the author covered her problem. The new volume is much more than a revision of the earlier book. Part I is entirely new and reflects an acquaintance with, and an understanding of, the trends of the last decade, together with a familiarity with the rapidly increasing mass of literature in this field. One notes, for example, that the author is sensitive to the implications of the Report of the Commission on the Social Studies of the American Historical Association At the same time, she is discriminating and critical in her adaptation of these implications to the grade level for which she writes Part I is, in effect, a complete introduction to the teaching of history in the middle grades, but teachers at any grade level should be grateful for the excellent and really penetrating discussions of objectives, the problem of interest, an integrated technique, the conversational approach, and the reading problem

Parts II and III consist of five units on early American history and seven on later American history and represent a complete reorganization and rewriting of the units presented in the earlier volume. The references and the teaching aids are brought up to date, and, in place of an almost exclusive reliance on the Morrison technique and its terminology, there is offered an "integrated technique"—an "integration of the established values into a higher synthesis" (p. 34) It is in this emphasis on the need of integration and a higher synthesis in the field of method that the author has made a distinctive contribution. Part IV is devoted to six units on "Learning and Teaching the Beginnings of Civilization," a field not included in the earlier volume.

---

[1] Mary G. Kelty, *Learning and Teaching History in the Middle Grades* Boston: Ginn & Co., 1936. Pp. viii+694 $2.40.

Elementary-school teachers have long been indebted to Miss Kelty for help in attacking the problem of the lower-ability group. The new volume again makes an important contribution in this respect, going much further in suggesting and differentiating between materials and study aids for "independent readers" and "lower-group" pupils.

Mention should also be made of the balance and the perspective with which the author approaches the problem of teaching history in the middle grades. This characteristic is especially noticeable in her handling of the issue of "integration or subject units." Her interpretation of current curricular trends in the social studies allocates varying degrees of integration to the primary, junior high school, and junior-college levels, retaining organization into subject units for the middle grades, senior high school, and senior college and graduate years. It is as a part of this "evolving pattern" that Miss Kelty has developed her subject units in history for the middle grades.

BURR W. PHILLIPS

UNIVERSITY OF WISCONSIN

Plans and materials for teaching music at the elementary and junior high school level.—In many schools the music lesson is taught by teachers deficient in aptitude and training in the subject. To such as these the present book[1] is directed. In simple and direct manner the author takes up the various phases of instruction, such as the music program, objectives, lesson plans, equipment, voice, rote singing, sight singing, part singing, song dramatization, rhythm and the rhythm band, appreciation, creative music, school music and the community, and music in rural schools. In addition to discussions of a general nature, one section contains ninety-three songs with notation; another section is devoted to materials dealing with fundamentals of music.

The author does not advocate one method in any of the musical items but attempts to describe various procedures Traditional devices and commonly accepted theories are briefly set forth. In the light of recent experimentation and research made by psychologists and musicians, some statements may be questioned. For example, why is the best singing range of young children given from *e flat* to *f sharp* of the treble staff? The upper pitches are seldom produced freely and beautifully. In exercises or drills for so-called "monotones" it is likewise unfortunate that the pitfalls of certain conventional schemes are not pointed out to the inexperienced teacher. Words such as "here" and "Jimmie" (p. 10) are not easy to sing, especially when they occur in the upper range of voice. It is desirable and necessary that the mouth be open to sing. However, the width of the opening depends on the natural size and conformation of the mouth and also on the word and pitch to be sung. To force the teeth apart beyond a certain point would stiffen the jaw and throat. The direction to the pupil to "place two of his fingers, one above the other, between his teeth, while singing *ah*" (p. 15) may be frowned upon, not only because the procedure would not be hygienic, but because to open the mouth to this extent would in many cases cause discomfort and poor vocal quality. The author favors the use of sol-fa syllables in teaching music-reading and songs and says that the logical scale for begining them is the scale of C. This statement is contradictory to that made previously regarding the range of children's voices

---

[1] Clella Lester Perkins, *How To Teach Music to Children.* Chicago: Hall & McCreary Co., 1936. Pp. viii+216. $1.50.

However, in spite of some defects in the book, there are many admirable features. The lists of references given at the close of some chapters are valuable. Methods are clearly stated, and the materials suggested are generally of good quality. The book may be considered a ready reference for the musical novice, as well as a useful manual for the more experienced teacher. The volume is attractively made, with clear print, good paper, and practical binding. A complete table of contents and an adequate index add to its usefulness.

ANNE E. PIERCE

UNIVERSITY OF IOWA

The application of principles of educational method to the teaching of physical education.—In spite of the fact that physical education as a school subject is required by some form of legislation in a majority of the states, there are few books dealing with general teaching methods in the field. Reasons for this lack may be that, while not new, physical education is one of the more recent subjects added to the public-school curriculum; that the nature of physcial education in this country has been undergoing radical change; and that physical education is a phase of education rather than a school subject and comprises within itself a wide variety of subjects.

For a number of years one book on teaching methods in physical education (William Skarstrom, *Gymnastic Teaching*. Springfield, Massachusetts: American Physical Education Association, 1914) was outstanding. The change from formal programs to the modern "natural" programs of physical education created a demand for books on method which would aid in preparing individuals to teach the new physical education Three have been published in recent years. The latest of these books[1] fills a real need. It reviews the background of physical education through its chapters on "Principles of Physical Education," "The School Program of Physical Education," and "The Hygiene of Physical Education." It reviews the groundwork of method by means of its chapters on "The Learning Process," "Foundations of Motivation," "The Individual Pupil," and "Individual Differences in Physical Fitness and Achievement." The special application of principles of educational method to the teaching of physical education is dealt with in chapters on "Class Management," "Class Organization and Control," "Methods of Presenting Subject Matter," "Planning Instruction," "Special Methods in Activities," and "The Measurement of the Results of Teaching." The chapters are not presented, however, in the order in which they are mentioned here.

---

[1] Jackson R Sharman, *The Teaching of Physical Education*. New York, A. S Barnes & Co , Inc., 1936. Pp. viii+238. $1.60

The author believes method to be a way of adapting subject matter to the needs of the learner. He thinks of education as a process of adjustments which can best be accomplished when education conforms to basic principles. He realizes fully the place of education in a democracy. The importance of adapting method to meet the problem of individual differences is evidenced throughout the book. Continued and frequent references to the literature on educational method and to research studies on general and physical-education method enrich *The Teaching of Physical Education*.

In addition to some question as to the logicality of chapter sequence and the inclusion in a book on methods of a large amount of space devoted to introductory and explanatory matter, *The Teaching of Physical Education* appears somewhat lacking in that wealth of practical techniques of method in physical education which would offer the unoriginal teacher concrete suggestions conforming to educational theory in such a way that the teacher's initiative and individuality are broadened rather than narrowed. This deficiency, if it is such, is especially noticeable in the chapters dealing with "Special Methods in Activities" and with "The Measurement of the Results of Teaching."

This book is especially meritorious because of its easy readability, its broad concept of physical education, its recognition of the importance of individualizing instruction, its emphasis on emotional development and on the formation of desired attitudes and ideals, its criticism of an overemphasis on the teaching of skills, and its close conformance with principles of educational method. *The Teaching of Physical Education* envisages a new type of physical-education teacher. It is doubtless the best book in its field.

D. K. BRACE

UNIVERSITY OF TEXAS

A new word list.—A publication by Buckingham and Dolch[1] sets forth a list of words obtained by combining various word lists which have been developed by other investigators. A hasty count indicates that approximately nineteen thousand words are catalogued.

The study is made up of three rather distinct parts. The first deals with an experiment, conducted by the authors, based on the so-called "free-association" method. In this experiment a large group of children in each of the elementary-school grades, beginning with the second, were asked to write any words which came into their minds during a period of fifteen minutes. This method seems to make a contribution to the methods of vocabulary study in that it apparently introduces the element of context with greater success than other investigations have done.

---

[1] B. R. Buckingham and E. W. Dolch, *A Combined Word List*. Boston: Ginn & Co., 1936. Pp. iv+186. $1.50.

The second part of the study names eleven different word lists from which the combined list is derived in part. The authors of these lists include Thorndike, Gates, Horn, and other well-known writers. This part of the study also includes five criticisms or comments on the resulting combined list which, according to the authors, may be considered as limiting its usefulness: (1) Children's word knowledge changes with life conditions. (2) There are gaps in the list. (3) The environment of children varies in different parts of the country. (4) The problem of correct grade placement of the words is complicated by the combination of the lists. (5) No definite meaning or meanings are given with any of the words.

The third part of the study is the actual word list arranged alphabetically, each word being followed by certain symbols indicating the original list or lists from which it was taken. The many teachers who use word lists in their daily work should find this volume a distinct aid.

C. T. GRAY

UNIVERSITY OF TEXAS

Supplementary reading for the elementary grades.—A book of interesting and well-told stories of Norway, Sweden, and Denmark has been written for children in the late primary and early elementary grades.[1] The material has many possibilities for classroom use: as a social-science reader, as supplementary reading in geography, and for recreational reading. The author, who collected her material in the countries about which she writes, tries to give the children an understanding of these people who live "near the top of the world" so that the children will regard them as people like themselves and not as queer or amusing She shows the young readers how these people make their ways of living fit the land in which they live. In the folklore, the Viking tales, the descriptions of castles and open-air museums, the children see history as the background for the present-day life of the people The book is not cluttered with suggestions for work and with questions to be answered The illustrations are well-chosen photographs which add to the enjoyment of the stories. The book is excellent and, worth a place in any classroom at the appropriate level.

A second supplementary reader[2] is suitable for children of the upper elementary grades when they need a vivid picture of lumbering in the early days of that industry. The author takes his readers into the great forests of long ago. He makes them familiar with some of the wonderful trees and with many of the little

[1] Nelle E. Moore, *Near the Top of the World*: Stories of Norway, Sweden, and Denmark. New York. Charles Scribners' Sons, 1936. Pp. xiv+196 $0.76

[2] John Hamlin, *Tales of an Old Lumber Camp*. A Story of Early Days in a Great Industry. Boston. D. C. Heath & Co., 1936. Pp iv+184 $0 80

creatures of the forests. He lets them listen to the wood choppers as they work and as they talk. He takes them to the camps where the lumberjacks are gathered for their meals or for Sunday rest. He takes them to the mills and to the logging railroads. He shows them the logging crews at work, and he gives them a lesson in forestry. He gives all his space to telling his story and to a glossary and does not use valuable space for study material. Knowing that the children will gain more from the photographs and drawings and from the colorful stories than from answering a number of questions at the end of each chapter, he wisely omits all study equipment. The book is interesting and thoroughly worth while for the children for whom the author has prepared it.

ADA R. POLKINGHORNE

CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY AND PRACTICE

BRUNSTETTER, M. R. *How To Use the Educational Sound Film.* Chicago: University of Chicago Press, 1937. Pp. xiv+174. $2.00.

CHENOWETH, LAURENCE B., and SELKIRK, THEODORE K. *School Health Problems.* With a chapter on "School Health Administration" by Richard Arthur Bolt. New York: F S. Crofts & Co., 1937. Pp. xii+388. $3.00.

HAGGERTY, MELVIN E. *The Evaluation of Higher Institutions:* II. The Faculty. Chicago: University of Chicago Press, 1937. Pp. xxii+218. $2.00.

HILDRETH, GERTRUDE. *Learning the Three R's:* A Modern Interpretation. Minneapolis, Minnesota: Educational Publishers, Inc., 1936. Pp. x+824.

MINOR, RUBY. *Early Childhood Education:* Its Principles and Practices. New York: D. Appleton-Century Co., Inc., 1937. Pp. xx+764. $3.00.

MORGAN, JOY ELMER *Horace Mann:* His Ideas and Ideals. Washington· National Home Library Foundation, 1936. Pp. viii+150. $0.25.

SCHORLING, RALEIGH, and MCCLUSKY, HOWARD Y. *Education and Social Trends.* Yonkers-on-Hudson, New York. World Book Co., 1936. Pp. vi+154 $1.32.

THOMAS, CHARLES EDWARD. *European Universities:* Observations of Social Life in Continental and English Universities and Colleges. Boston: Bruce Humphries, Inc., 1936. Pp. 118. $2.00.

THORNDIKE, EDWARD L. *The Teaching of Controversial Subjects.* The Inglis Lecture, 1937. Cambridge, Massachusetts: Harvard University Press, 1937. Pp. 40.

WILLIAMSON, E. G., and DARLEY, J. G. *Student Personnel Work:* An Outline of Clinical Procedures. New York: McGraw-Hill Book Co., Inc., 1937. Pp xxiv+314. $3.00.

BOOKS PRIMARILY FOR ELEMENTARY-SCHOOL TEACHERS AND PUPILS

Alexander, Carter. *Around the World Almanac in Eighty Questions:* First Series for 1937 *World Almanac.* New York: Carter Alexander (525 West 120th Street), 1937. Pp. 24. $0.10.

The Follett Picture-Stories: *Milk* by Alta McIntire; *Bread* by Helen Harter, *Food* by Helen Harter and Alta McIntire; *Trains* by D. W. Follett; *How the City Serves Its People* by Alta McIntire. Chicago: Follett Publishing Co., 1936. Pp. 40, each. $0.15 each.

Georges, Joel S., Anderson, Robert F., and Morton, Robert L. *Mathematics through Experience:* Book I, pp. vi+378+24, $1.00; Book II, pp. vi+394+28, $1.04. Newark, New Jersey: Silver Burdett Co., 1937.

Life Adjustment Series: *Information Book on a Health Program,* pp. 94, $0.40; *Practice Book on a Health Program* by C. A. Prosser with the collaboration of Walter A. Anderson, pp. 52, $0.20; *Information Book on Taking a Look at Yourself,* pp. 64, $0.36; *Practice Book on Taking a Look at Yourself* by C. A. Prosser, pp. 52, $0.20. Bloomington, Illinois: McKnight & McKnight, 1936 and 1937.

O'Donnell, Mabel, and Carey, Alice. *If I Were Going.* The Alice and Jerry Books, Reading Foundation Series. Evanston, Illinois: Row, Peterson & Co., 1936. Pp. 344.

Palmer, E. Laurence. *Nature Magazine's Guide to Science Teaching.* Washington: American Nature Association, 1936. Pp. 128.

Pennell, Mary E., and Cusack, Alice M. *The Children's Own Readers: Friends,* A Primer, pp. 146, $0.60; Book I, pp. 188, $0.68; Book II, pp. 288, $0.72; Book III, pp. 350, $0.80. Boston: Ginn & Co., 1936 (new edition).

Rugg, Harold, and Krueger, Louise. *"The Building of America" Workbook.* Boston: Ginn & Co., 1936. Pp. 94. $0.24.

Rugg, Harold, and Krueger, Louise. Man and His Changing Society: Vol. VI of the Elementary School Course, *Man at Work:* His Industries. Boston: Ginn & Co., 1937. Pp. vi+530. $1.12.

Strang, Ruth. *Every Teacher's Records.* New York: Teachers College, Columbia University, 1936. Pp. x+48. $0.50.

Whitford, William G., and Liek, Edna B. *Art Appreciation for Children:* A Course of Study for Art Appreciation and a Teacher's Guidebook for the Art Stories Series. Curriculum Foundation Series. Chicago: Scott, Foresman & Co., 1936. Pp. 224. $0.25.

PUBLICATIONS IN PAMPHLET FORM

Ade, Lester K. *The Program:* Comprising Practical Philosophy, Present Program, and Advancing Frontiers of Public Education. Harrisburg, Pennsylvania: State Department of Public Instruction, 1936. Pp. 50.

Language Development in a Nursery School Child: A Case Study. Child Research Clinic Series, Vol. II, No. 4 (Whole No. 10). Langhorne, Pennsylvania: Child Research Clinic of the Woods Schools.

Minimum-Salary Laws for Teachers. Washington: Committee on Tenure of the National Education Association, 1937. Pp. 38. $0 25.

A New Development in Natural Science Pedagogy: Nature Magazine as a Current Text for Classroom Instruction in Natural Science. Washington: American Nature Association, 1936. Pp. 28.

Proceedings of the Thirteenth Annual Educational Conference and the Second Annual Meeting of the Kentucky Association of Colleges and Secondary Schools, University of Kentucky. Bulletin of the Bureau of School Service, Vol. IX, No. 2. Lexington, Kentucky: University of Kentucky, 1936. Pp. 206. $0.50.

Proceedings of the Twenty-third Annual Meeting of the Association of Urban Universities at Detroit, Michigan, 1936. Fourteenth Report. Pittsburgh, Pennsylvania: Association of Urban Universities (Roscoe M. Ihrig, Secretary-Treasurer, % Carnegie Institute of Technology, Schenley Park).

School Accounting Documents: For the Guidance of Boards of Education. Prepared by the Finance Division of the New York State Education Department. University of the State of New York Bulletin, No. 1094. Albany, New York. University of the State of New York Press, 1936. Pp. 38.

SMITH, HENRY LESTER, and PAINTER, WILLIAM ISAAC. *Bibliography of Literature on the Teaching of English:* January 1, 1930 to January 1, 1936. Bulletin of the School of Education, Indiana University, Vol. XIII, No. 1. Bloomington, Indiana. Bureau of Co-operative Research, School of Education, Indiana University, 1936. Pp. 300. $0.50.

Thirty-first Annual Report of the Carnegie Foundation for the Advancement of Teaching. New York: Carnegie Foundation for the Advancement of Teaching, 1936. Pp. 194.

University of Toronto Studies, Child Development Series: No. 6, *An Evaluation of the Case Histories of a Group of Preschool Children* by W E. Blatz and J. D. M. Griffin, pp. 24; No. 7, *A Study of Laughter in the Nursery School Child* by William E. Blatz, Kathleen Drew Allin, and Dorothy A. Millichamp, pp. 32. Toronto, Canada. University of Toronto Press, 1936. $0.50 each.

Vitalized Commencement Manual, 1937. Washington: National Education Association. Pp. 58.

THE ELEMENTARY SCHOOL JOURNAL

VOLUME XXXVII APRIL 1937 NUMBER 8

Educational News and Editorial Comment

Limitation on the Authority of Government

Throughout the civilized world today men are being forced to choose between the democratic and the authoritarian state. Perhaps this issue, more or less well defined, has been on the agenda of mankind since the dawn of history. Be that as it may, the issue is now defined with particular clarity. There can be no doubt that the great mass of citizens in this country accept the democratic principle: they believe in democracy, they want it to work. They realize, too, that the functions of government must necessarily expand, that government must be given authority commensurate with its responsibility. At the same time, seeing many of the peoples of the world caught fast in the grip of absolutism, they are fearful of placing in jeopardy those fundamental rights and liberties which have been won through centuries of struggle. As in democracies everywhere, we in the United States are faced with the problem of how much authority to confer upon government, of how to strike a proper balance of freedom and restraint in the area of political action. The following statement, quoted from the recently published Yearbook of the National Society of College Teachers of Education (*The Use* *of Background in the Interpretation of Educational Issues*, published by the University of Chicago Press), relates to one side of the issue; it points out some of the dangers of an overlimitation of the authority of government. It was prepared for the Yearbook by the editor of the *Elementary School Journal* and may, therefore, be regarded in this connection as an editorial.

In some quarters there is the professed belief that the democratic state is lacking in power, weak in the force of its sanctions, and impotent in crises requiring quick and positive action. Such may or may not be the case, depending on the attitude of the people toward government and on the number and character of the restrictions which they place upon it.

Under one type of constitution the legislature has the authority to enact such legislation as changing economic and social conditions may require It may adjust the administrative mechanism of the state to current needs, and it may allocate to administrative agencies such functions as sound policy may dictate. On the other hand, the constitution may be so restrictive as to make the effective functioning of government extremely difficult if not impossible. The people may strait-jacket themselves in a rigid and narrow constitutionalism and thus render their government practically impotent in the face of swift economic and social change. The written constitution may be made a most powerful instrument for the maintenance of the *status quo* and for the prevention of experimentation and invention in the broad area of social relations.

An examination of the development of state constitutions in this country reveals that throughout our history these constitutions have been regarded as having two primary functions. The first of these has been to establish the structure of government and to allocate functions and powers among the various governing agencies The second major function of constitutions has been to restrain government, to limit its operations to the end that the rights of the individual be adequately and fully protected. The function of constitutions has been in part to create government but more particularly to restrain it. This tendency to restrain government has its roots deep in the experience of the race, and it has been profoundly conditioned by changes in American life.

At the time of the establishment of the first American states, men had struggled for centuries for liberty under government, for freedom from the restrictions of centralized and arbitrary power. And the clash between the colonists and the mother-country had only served to deepen the distrust of government. During the controversy with England immediately before the Revolution, Americans insisted that the power of Parliament was limited by the British Constitution and that any act passed in violation of that constitution was null and void. There was, they held, above the British government and, indeed, above all government, a body of fundamental law which restrained the action of government within certain limits. This fundamental law they called a constitution. At times they used the term as meaning that body of legal principles and customs which had been developed in the course of English history; at other times they had in mind a body of natural law, the law of nature, of justice, or of God. In either case, they contended, the constitution acted as a prohibition upon the powers of Parliament. But English statesmen were not convinced; they countered with the assertion that Parliament was supreme.

When the Revolution was over and won, and Americans set about the establishment of their own governments, they were determined to set to rest once and for all the doctrine of supremacy of government. This they did by reducing to written, concrete form those principles of fundamental law which they deemed necessary to protect the individual in the exercise of his so-called natural and inalienable rights. The fact is, we came out of the Revolution with a negative conception of the state, with the idea that that government is best which governs least. Only to a limited extent did we regard the state as an instrument for the accomplishment of social ends. As John Jay put it, it took a long time to make citizens out of subjects. The individual states sought freedom of restraint from the national government; civil and other subdivisions of the state wanted to be let alone by the commonwealths; and the individual citizen was disposed to go his way with the least possible contact with government at all levels. Political theory and practice were grounded upon a philosophy of individualism and isolation, and the written constitution was regarded as the most effective means of keeping governments within the desired metes and bounds.

As a matter of fact, however, the state governments established under the first constitutions were less restricted and were free to exercise a greater authority than any that have since been established. The early constitutions placed limitations on legislative activity relative to a few so-called natural rights such as religious freedom, freedom of speech, trial by jury, and the like, but they did not, to any great extent, restrict the legislature in matters of general policy. But in the course of the nineteenth century new bases were developed for the negative conception of the state and for placing on government additional and more minute restraints. The philosophy of the frontier was the philosophy of individualism, of self-reliance. Men living in comparative isolation felt little need of co-operative action for the common good. Thus the ancient fear of unlimited authority in government was powerfully reinforced by the spirit of independence and unrestraint generated in a frontier society. And somewhat later, with the development of industry and the concentration of economic power in the large corporation, the philosophy of laissez faire came to rest on still another basis. The Civil War had resulted in the defeat, one may even say the annihilation, of the agrarian power and the triumph of eastern industrialism; a virgin continent, by all odds the richest in the world in natural resources, awaited the development or exploitation of the industrialist, science, technology, and invention made possible new and startling processes of production; the shores of Europe teemed with millions of men ready and eager to contribute their labor at a living wage; the corporation as a form of business organization made possible aggregations of capital sufficiently large for any enterprise. Here was a veritable El Dorado if only government could be restrained within "proper" bounds, be prevented from interfering with the right of man to manage his property or to dispose of his labor as he saw fit. Individualism, freedom of contract, unrestricted competition, profits—these were now the goals of laissez faire. . . . . Thus the philosophy of individualism and the practice of rigidity in government which originally grew out of the struggle to protect the rights of man against the tyranny of unrestrained power came to rest primarily upon an economic basis. . . . .

It is not the written constitution alone, however, which forms the basis of the cult of rigidity in government; the unwritten attitude is perhaps of equal importance. Government finds it extremely difficult to dissociate itself from long established ideas and traditions. During the course of centuries the possessors of political power employed every known device to keep themselves enthroned, whether of appeal to divinity, force, fear, or custom. And even in democracies, where political power rests with the people, the religion of rigidity still retains much of its old vigor and vitality. Men who accept without protest the revolutionary changes wrought by technology in the areas of mechanics, of economics, and of business organization, fight to the bitter end any reorganization in the structure or functions of government. And yet it should be patent that to follow a policy of political drift in the face of the social consequences of the swiftly moving current of technological change is to invite, if not to insure, disaster. Certain it is that the impact of technology on the modern world has broken old political forms; it is equally certain that the future will see . . . . [the] functions of government cast in new molds. The line which has separated economics from politics has been effaced; new functions are thrust on government, now in this area of life and now in that. Townships, counties, school districts, and other units of local administration have been rendered obsolete; power flows from one unit of government to another, from county and school district to the state, from the state to the city, and from the state to the federal government; a new distribution of functions between the legislative and executive branches of government occurs and new agencies of administrative control develop. But fundamental change occurs, if it occurs at all, slowly, and in the face of determined resistance.

It begins to appear that the alternatives of political drift are, on the one hand, social initiative and invention and, on the other, a return to centralized and arbitrary power. And it is not to be assumed that the forms of political organization have been exhausted, that the choice lies between fascism, communism, or laissez faire democracy. The democratic state may be able to survive in the modern world, but, if it does so, democracies will be forced to cultivate the spirit of political experiment, invention, and contrivance.

. . . . education is essentially a function of the state; and for good or ill it shares the fortunes of the state. The state assigns the school its primary functions, provides the organs of its administrative control, and prescribes the extent and means of its support. The written and unwritten laws decree the curriculum and define the area of intellectual activity. The school is inextricably a part of the political structure and cannot, even if it would, escape being affected by experimentation in the broad area of politics And in the more restricted area of school administration there is demand for initiative and experiment. If the public-school system is to be a force in keeping open the door of equality of opportunity, if, indeed, it is not to contribute to the establishment of the very inequalities in the condition of men which it was designed to prevent, if it is not to bring about class, regional, and race distinctions, there must be a redistribution of the costs of education between locality, state, and nation. Within the states antiquated tax systems must be revised, and conflicts in taxation between the state governments and the federal government must be adjusted. The advance of technology is rendering obsolete the older units of local administration, including counties, townships, and school districts. Legislative bodies are becoming increasingly disqualified to exercise directly many of the control functions in the field of education and are faced with the necessity of devising new agencies of administrative control. As in all areas of governmental activity, so in education, there is need for experimentation and social inventiveness.

THE FUNCTION OF EDUCATION IN A DEMOCRATIC SOCIETY

The Educational Policies Commission of the National Education Association and the Department of Superintendence has published a small volume entitled *The Unique Function of Education in American Democracy*, in which are set forth the commission's views on the function of education in American democracy. The statement was drafted by Dr Charles A. Beard, after consultation with the commission, and was later revised in light of suggestions made by members of the commission. In the first part of the volume Dr. Beard, in his own inimitable way, portrays the development and operation of American education within the purposes and ideals of the democratic tradition; in the latter portion of the book he analyzes the nature and obligations of education and sets forth a point of view with respect to the conditions requisite for the discharge of those obligations. The commission is to be congratulated on the preparation of this statement of principles. It is informing; it is inspiring; it should be read by every teacher and by every citizen as well

We feel justified in quoting at some length the following significant passage dealing with the nature of education and its obligations

When all that is associated with education as philosophy and reality is brought under review, it presents two phases which, though inseparable, may be called for convenience *intrinsic* and *extrinsic*. While education constantly touches the practical affairs of the hour and day, and responds to political and economic exigencies, it has its own treasures heavy with the thought and sacrifices of the centuries. It possesses a heritage of knowledge and heroic examples—accepted values stamped with the seal of permanence. Yet it is more than the inanimate record of tradition, more than books, maps, pictures, models, and methods of instruction. Education finds expression in the living personalities connected with it, in the relations of board and administration, in the associations of teachers and pupils, in attitudes, bearings, and skills, in all the nobler impulses of the humanities which are sustaining forces of society. Forever affiliated with education, in varying degrees of intensity, is the inscrutable urge of aspiration and creative intelligence which gives elevation to daily duties and seeks the improvement of the heritage. It guards those virtues of the race that are vouchsafed to the humblest—industry, patience, self-denial, and consideration for others, and at the same time it stimulates the more imperial gifts of imagination, originality, and invention by which the treasures of mankind are enlarged and enriched. Wielding no weapons of sheer power, claiming no pomp and circumstance of State, education nourishes the underlying values upon which State and Society depend for their existence—values which outlast transformations in the working rules of government and economy, and offer promises of humane reconstruction in times of crisis and threatened dissolution. Beyond question, the members of the teaching profession do not claim to be adequately prepared by natural talents or by training for the weighty tasks imposed upon them by education. Nor does any Hippocratic oath bind them into a single fraternity committed with whole heart to the ideals of their own heritage. But even an elementary knowledge of the history of education, from crude drawings on the walls of paleolithic caves to the complicated activities of the modern university, vests in them a fiduciary trust meritorious in itself and to be protected against mere coercion and expediency. This trust remains a center of interest and affection when that aspect of education, called extrinsic, is drawn into consideration and the obligations of the schools to government, economy, and society are determined and assumed.

No sharp line can be traced between the inmost substances of education and the external circumstances that influence it and call upon its leadership for services. Yet there is a center of gravity in education—a treasury of knowledge, aspirations, and values—that endures and is to be cherished against mere expediency. This heritage is old in its origins and still ever new in contemporaneous thought. It contains some features peculiar to America and some that are common to education in all ages and all countries, however carried on—under domestic, private, religious, independent, or public auspices. These features are indeed primordial for civilization. They represent values which the sponsors of democracy from antiquity to modern times have deemed essential to humane living and to effective self-government.

This is no place to attempt a distillation of forty centuries of educational thought and aspiration, even were the powers to undertake it at command. But stress must be laid on the intrinsic and enduring features of education. Otherwise they may be neglected amid the pressures of immediate demands upon the schools, and encouragement may be given to the menacing conception that education is nothing in itself, is a mere servant of triumphant power—political, military, or economic.

It is obvious, and still must be emphasized, that education has obligations attached to the profession. The teacher is not a soldier, a lawyer, a physician, a businessman, a farmer, or an industrial worker. Other callings have their responsibilities. Teaching has the responsibilities of its commitments. In its heritage is knowledge—of the great classics deemed appropriate for instruction in the schools, of educational philosophy from Plato through Rousseau and Froebel to the latest pathbreakers, of the scientific works employed in the several branches of learning, and of the technical works on method and practice. It is the duty of teachers, according to their powers, to master as much of this knowledge as they can.

Above all, education has obligations to truth in itself and for its own sake—obligations to seek it, defend it, and make humane use of it. Education must keep alive memories, linking the past with the present and tempering the sensations of the hour by reference to the long experiences of the race. It must kindle and feed the imagination, by bringing past achievements of the imagination into view and indicating how new forms of science, art, invention, and human association may be called into being. Education must foster aspiration—the desire to be more, to acquire greater skill and knowledge, and to create. It must cherish beauty as a value in itself and as contributing to mental health, power, and pleasure, as adding rewards to labor and delight to life. Concerned with truth and the great powers of mind and heart, education is bound to assert the liberty in which they may flourish, to quicken minds, to encourage searching and inventiveness, to employ tolerance and the judical spirit, to inculcate habits of gentleness and justice. On these considerations education has no monopoly, to be sure, but its intrinsic obligations fall within the broad field thus laid out

RESOLUTIONS OF THE DEPARTMENT OF SUPERINTENDENCE

We quote below the "Preamble" and the resolutions relating to federal aid and the program for education which were adopted at its recent meeting in New Orleans by the Department of Superintendence of the National Education Association.

PREAMBLE

Education is the greatest necessity to living suitable lives, saving our democracy, and providing for the progress of our nation.

It provides for the span of generations and outlasts the changes which arise from emergency and short-term programs.

Education is the result of many agencies and forces of which the school is a very important one. It is concerned with human interests, the most important of which is the government and the complete happiness of every citizen. It enables people to govern themselves, to make unbiased decisions on policies and programs, and to change the order of society as conditions may require. Education will survive the efforts of the partisan and the opportunist when it is truly serving the best interests of a democratic society and protecting its valued institutions. It brings the greatest culture and training possible in our economic, social, civic, and moral living.

Education has the purpose of advancing wisdom, knowledge, ideals, and attitudes which will enable one to live with and for people in an unselfish manner. It will function in and from the home, the church, the school, and in every experience we may have through our lives. In order that public education may continue to hold its unique place in American life, we propose the following program:

FEDERAL AID

We feel that the public schools should be free and open to every child and that in the United States equality of opportunity is the right of every citizen; that to guarantee these rights as such it is the obligation of the federal government to aid the states and the local subdivisions thereof in the equalization of opportunity with the positive assurance of sufficient funds to maintain a suitable program for all.

The federal contribution to the states for the support of public education should be extended without any federal control and should be administered through the state department of education within the states receiving such funds. We respectfully request the Congress and the President of the United States to provide for the passage of the Harrison-Black-Fletcher Bill at the very earliest possible time. We positively recommend that additional aid be given under the above conditions of control for the advancement of vocational, industrial, adult, youth, and preschool educational programs There is a very grave necessity for national support of public education and for united action against the enemies of our society which include the selfish partisan, the racketeer, the Communist, the Fascist, the opportunist, the war lord, and similar influences tending to destroy popular government.

Mindful of the increasing demands upon our schools for new services, we ask that more consideration be given to the place of public education in the present reorganization of the federal government.

THE PROGRAM

We realize the need of clearing out the deadwood from the curriculum, at the same time recognizing the necessity for its continuous change and enrichment. We urge an expansion of the school program to include early childhood and adult levels and to make more adequate provision for the needs of youth.

We recommend the restoration of services suspended during the economic crisis, with an improved instructional program supported by a more liberal use of research, guidance, library, modern equipment, and materials.

We point to the need of more vital relationships between the public schools and all other educational agencies which deal with community activities and services.

We emphasize a wider use of such current instruments and agencies of education as sound pictures, radio, and press.

We indorse all legislation for the proper protection of childhood in matters of safety, care of health, physical development, and freedom from exploitation and the burdens of continuous labor.

We regard as basic to the success of our educational program the improvement of teaching and of the administrative force in charge. This can be accomplished not only through better intellectual, social, and personal equipment, but also through advancement on merit, economic security and protection against personal and partisan politics, and through freedom to teach the truth.

AN INTERNATIONAL CONFERENCE ON ELEMENTARY AND POPULAR EDUCATION

The National Syndicate of the Teachers of France, acting in agreement with the French government, are organizing an International Conference of Elementary Teaching and Popular Education to be held on the occasion of the International Exhibition of 1937. Both the syndicate and the government believe that, among the hundreds of thousands of visitors who will come from all countries to attend the exhibition, many will be "united by a common preoccupation of that education on which depends the future of civilization." The conference will begin on July 23 and continue to July 31, 1937. The general purpose and activities of the conference have been announced as follows:

> Our wish is that this conference may gather the best-known personalities in the scientific and artistic spheres as well as in all the technical departments of every country, so as to present a universal view of the present state of research made in the way of educating children.
>
> These activities will include at the same time plenary and private meetings in relation with every section of work; every lecture will be followed by a debate.
>
> The activities of the sections will bear on the questions concerning at the same time primary education, that is, the period of compulsory teaching, and popular education in its various forms: optional extended teaching, post-scholar teaching, adults' education.
>
> Eight sections, the third one being divided into five under-sections, will

divide the subjects [of] study that will be presented in the form of instructive lectures followed by debates.

I. General philosophy of popular education
Tendencies of education—The active part of the state school in its relations with philosophical, political, and religious problems—The rights of human personality and concept of social duty

II. Psychology applied to popular education
Experimental psychology related to method. Tests—Scholar psycho-pathology—Psycho-techniques—Vocational guidance—Medical supervision—Deficient children's education

III. Teaching methods
 1 Infant schools and primary classes
 Training in reading and writing
 2. General method of primary tuition
 Active method—New methods of education—Schemes
 3. Rhythmic training
 4. Teaching of art
 5. Books and libraries for children

IV. National education and international co-operation
Civic education, teaching of history and geography—Means of connecting national education with the spirit of international co-operation

V. Preparation, training, and development of the teaching staff

VI. Material life of the school
School buildings—Carrying of pupils to schools—Medical assistance—Refectory—Playgrounds—Swimming baths—Teaching requisites

VII. New techniques
Broadcasting—Moving pictures—Gramophone

VIII. Popular education
Psychology of youth applied to post-scholar teaching: Purpose, limits, method—Professional education, initiatives, and training—Civic formation of youth—Colleges and universities for artisans and country people—Upper popular schools—Popular libraries

Some visits to the most typical academic institutions, an instructive exhibition, demonstrations with moving pictures will complete these . . . . objective, great, and lively instructions by which will be shown the universal endeavor for popular education and by which all the philosophers, psychologists, and masters of the school will be directly connected, through the very important gathering it will provide Meanwhile the simultaneous holding of other scientific conferences will help to bring together those who seek for knowledge and those who apply it.

Communications should be addressed to M. Louis Dumas, Musée pédagogique, 29, Rue d'Ulm, Paris—5e, France.

NEW AND SIGNIFICANT DATA ON THE RELATIVE INFLUENCE OF HEREDITY AND ENVIRONMENT

In an article in the *Scientific Monthly* Professor Frank N Freeman, of the University of Chicago, presents the general conclusions of a study[1] of nineteen pairs of identical twins who had been separated since infancy. The results of this investigation are of unusual importance because the study of only one pair of separated identical twins had previously been reported in the literature. The evidence here presented indicates that all kinds of traits—intellectual, temperamental, and social—may be materially influenced by environment. The following passage is quoted from the article.

> If we take the nineteen pairs as a whole and compare them with identical twins brought up together, we get a contrast which is somewhat analogous to that between identical twins and fraternal twins in the same home. We have here two groups similar in heredity but differing in environment. In all the mental traits which were tested the separated identical twins differ more than do the identical twins brought up together. The difference appears both in intelligence and educational achievement but is somewhat greater in the latter than in the former.
>
> This comparison is not very satisfactory, however, because in some cases the separated twins were brought up in homes which were very much alike, were given about the same kind and amount of education, and had lived subsequently under the same general conditions. It is more instructive, therefore, to examine the various separated pairs, to study the degrees of difference in their environment, and to examine the relation between the difference in their environment and the difference in their traits.
>
> Two or three cases will illustrate the amount of difference in ability or personality which may be produced by a large difference in the environment. A rather specific difference in the environment which can be stated in fairly accurate terms is the difference in formal schooling. The largest difference in formal schooling of any of our pairs was found in the case of two sisters, one of whom had had only two years of schooling and the other of whom had gone through college, taken a teacher's course, and subsequently became a high-school teacher as well as a teacher of music. The first sister had supplemented her formal schooling by her own efforts sufficiently so that she was able to hold a clerical position.
>
> The difference in schooling, however, had produced a chasm which could not be bridged by self-education. If measured in terms of mental age the difference

---

[1] Dr. H. H. Newman and Dr. Karl J Holzinger, both of the University of Chicago, collaborated in the investigation.

in ability of the two sisters is equivalent to a difference of four years in development. When expressed in terms of the intelligence quotient the difference is twenty-four points. The meaning of a difference of twenty-four points may be grasped from the fact that the lower score would put the individual in the lowest fifth of the whole population, and the higher score in the highest fifth. In other words, more than three-fifths of the entire population would lie between these two scores. A few other pairs enjoyed widely different amounts of formal schooling, although in no other cases was the contrast so extreme as in this one. In one other pair the difference in I Q. was nineteen, and in a third it was seventeen.

It might be thought that these are isolated cases and that the coincidence of a difference in education and in intellectual ability is an accident. That this is not true is shown by comparing the difference in education with the difference in intellectual ability throughout the entire group. In general, the two differences correspond very closely. If the difference in education is large the difference in ability is large, and if the difference in education is small the difference in ability is also small. As might be expected, the difference in educational achievement corresponds almost exactly to the difference in the amount of education which has been enjoyed. In other words, not only does a difference in education affect the ability of the individuals who are compared, but the amount of difference in education corresponds closely with the amount of difference in ability. Since inheritance is identical, this is conclusive evidence that education and training are large factors in ability.

After presenting evidence to show the influence of environment on personality, Professor Freeman reaches the following generalizations.

These examples are sufficient to show that sharp contrast may be produced in personality and character as well as in mental ability by differences in education, training, and treatment. They give no warrant for the habit so many people have of attributing every trait of mind or of behavior which a person exhibits to inheritance from some ancestor who possessed a similar trait. The inheritance of such traits may take place, but there is no evidence that it must take place. On the contrary, there is good evidence that one's traits frequently have their origin in the environment as contrasted with heredity.

The study of twins has not answered all the questions that we would like to have answered It does not inform us whether heredity or environment is the more influential. It has not yet indicated just what the limits of the influence of environment are It does indicate that the environment may affect all kinds of traits: intellectual, temperamental, and social. It indicates that this influence is large enough to be of the greatest importance and that human nature may be improved or debased to a degree which many have thought impossible. It probably indicates that we are far from having exhausted the possibilities of education and training for the enlargement of mental power and the improvement of behavior. It indicates that large returns may be expected from a continued attempt to improve the methods of education. Finally, it indicates that, while democracy may need to be adapted to the differences between people, it is not the idle dream which some extreme hereditarians have made it out to be.

"SELECTED REFERENCES IN EDUCATION, 1936"

Reference has not yet been made in these pages to publication of *Selected References in Education, 1936*, the fourth monograph in a series reprinted from the *Elementary School Journal* and the *School Review*. Regular readers will hardly need to be reminded that the monographs are an outgrowth of a co-operative project of the two journals to provide educational workers with a needed bibliographical service provided by no other agency. Convenience in the use of the monograph for 1936 has been increased by the inclusion of a complete index of authors. The charge for each monograph alone is ninety cents. The charge for any additional monograph of the series is sixty cents. The full series of four, containing almost five thousand selected and annotated references over practically the whole field of education since 1932, may thus be purchased for $2.70. Orders should be directed to the Department of Education, University of Chicago, 5835 Kimbark Avenue, Chicago, Illinois.

INSTRUCTIONAL MATERIALS FOR THE TEACHING OF TRAFFIC SAFETY AND DRIVING

Superintendents and principals who are interested in introducing into their schools a program of drivers' education and training will find invaluable a series of pamphlets published by the American Automobile Association, Washington, D.C. The first pamphlet in the series, *Sportsmanlike Driving*, is a teacher's outline and guide for a course in traffic safety and driving. It was prepared by the staff of the association. The second pamphlet, *The Driver*, was prepared by Mrs. Carroll D. Champlin, Pennsylvania State College. It deals with the physical, mental, and emotional characteristics of the driver. Mrs. Champlin is also the author of the third pamphlet, *Driver and Pedestrian Responsibilities*, which discusses the psychology and obligations of the driver, good sportsmanship at the wheel, sound pedestrian practices, and what society is doing to safeguard the pedestrian. Professor William J. Cox, of Yale University, is the author of the fourth pamphlet, *Sound Driving Practices*. Attention is directed here to sound driving practices, how they are related to accidents, and how they become crystallized into law. There is also included a discussion of traffic accident records and statistics. *Highway Traffic—Its Development and Problems* is the title of the fifth pamphlet, which was prepared by Maurice R. Davie, of Yale University. It deals with the history of automobile transportation, social and economic value of the automobile, society's efforts to cope with the traffic problem, and the development of modern roads. The authors of the sixth and last pamphlet of the series are Amos E. Neyhart and Mrs. Carroll D. Champlin, Pennsylvania State College. This pamphlet, *The Automobile and How To Drive It*, includes a discussion of such topics as the following: how the automobile runs, how to drive an automobile, keeping the car in safe condition, and examinations and tests.

The association has also prepared a bibliography of courses in safety and driving and a list of some free publications on traffic, safety, and driving

A NEW PERIODICAL FOR TEACHERS OF ADULTS

The New York City Board of Education and the Works Progress Administration have begun the publication of a periodical bearing the title "Service Bulletin for Teachers of Adults." The general purposes of the bulletin are described as follows in the first issue:

> Three categories of services are at present contemplated for the "Service Bulletin" These services are directed toward the goal of greater professional co-operation and higher standards among the men and women in the field of adult education. The "Bulletin" is planned as a clearing-house of information for the hundreds of teachers who have worked, planned, and learned and yet who, with respect to one another, have remained, in large degree, incommunicado
>
> Professional information and aids for teachers are intended as the first service. Annotated bibliographies and reference lists of books and other materials on the principles and techniques of adult education will be a regular feature. New books and pamphlets will be reviewed. Each issue will contain digests of valuable current articles in educational periodicals Along with such reviews and digests, information will be supplied as to the most convenient method of reaching the original materials. Furthermore, descriptive lists of books and pamphlets added to the Research Library, and therefore freely available to all teachers, will appear in each issue
>
> In the second place, research studies, statistical surveys, and other relevant investigations in the field of organized adult education will be offered to teachers

in the form of concrete summaries. New techniques and new tendencies will be considered in special articles or among the book and magazine reviews.

Articles on adult-education movements in other countries, analyses of the situation in New York and in other communities, with opinions and suggestions by competent writers, make up a third part of the program of the "Bulletin." Such articles may be described as attempts to treat of adult education in its philosophical and historical aspects. . . .

This is, to repeat, a periodical for teachers of adult classes within the program of the federal government and the Board of Education of New York City. The test of its utility must be the measure of professional service it can render to the men and women engaged in this work. If this "Bulletin" can promote higher standards and a greater degree of professional co-operation, if it can stimulate a wider and more penetrating curiosity in the science, the history, the philosophy of adult education, then it is on the road toward achieving its purpose. It is the hope of the staff engaged in this work that our readers, by their criticism, will aid in shaping this publication into a professional organ with something of value for all persons connected with the adult-education program.

The bulletin is published at 143 Baxter Street, New York City. Bernard Spivack is the editor.

WHO'S WHO IN THIS ISSUE

CHARLES H JUDD, head of the Department of Education of the University of Chicago. CLAUDE L. WILLIAMS, principal of the Wentworth School, Chicago, Illinois. RUTH L. WHITAKER, principal of the Scott School, Chicago, Illinois. C. A. HARPER, associate professor of social science at the Illinois State Normal University, Normal, Illinois. W. GEORGE HAYWARD, supervising principal of the Hohokus Township Public Schools, Mahwah, New Jersey. NANCY M. ORDWAY, first-grade teacher at School Number Two, Mahwah, New Jersey. KATHERINE L. MCLAUGHLIN, associate professor of education at the University of California at Los Angeles.

CAN DIVERGENT VIEWS ON EDUCATIONAL THEORY AND PRACTICE BE RECONCILED?[1]

CHARLES H. JUDD
University of Chicago

The public is bewildered by the fact that leaders in American education hold views with regard to education and advocate practices in the schools which not only are different from one another but seem to be in many cases violently antagonistic. Teachers also are confused. With every change in their supervisors, they find themselves called on to adopt methods of teaching and materials of instruction which are new and often quite strange. The authors of the articles which appear in educational journals and of the current books on principles and philosophy of education devote as much space to destructive criticisms of the writings of others as to the presentation of their own views.

If one tries to discover the reasons for the present chaotic situation, one must go back to a period somewhat more than a half-century ago when the schools of this country began to feel the impact of two powerful forces which disturbed the complacency that had long prevailed with respect to teaching and ushered in the era of experimentation in the midst of which we are living today. One of these forces was the social and industrial revolution, which changed the people of the United States from an agrarian nation into a nation of city dwellers engaged in mechanical occupations. The second force was the new concept of education which began in the eighties to gain acceptance under the leadership of the Herbartians and of G. Stanley Hall.

This is not the time nor the place for an extended historical analysis of the momentous educational happenings of the period referred to, when the modern high school came into existence and when the common school began to enrich its program of instruction.

---

[1] Address delivered on February 23, 1937, at the meeting of the Department of Superintendence of the National Education Association.

It is enough for our present purposes to point out that during the closing years of the nineteenth century it came to be clearly recognized that education cannot prepare the individual for life unless it goes much further than to fill his memory with formal knowledge of arithmetic and spelling and with lists of geographical facts. The evolution of industry imposed exacting demands on intelligence and led to a universal desire for a broader education. The Herbartians and G. Stanley Hall reinforced the dissatisfaction with formal education by showing the importance of educating pupils in methods of independent thinking and by calling attention emphatically to the natural interests and activities of pupils.

Every reform undertaken or suggested since 1890 has had as its chief aim the release of the schools from formalism. To be sure, formalism has not been entirely banished from the educational system. There are teachers in the United States who still demand verbatim repetition of the statements made in textbooks. There are teachers who see no applications of what is learned in school to everyday life and make no effort to induce their pupils to discover applications. There are dull routinists who go over the same ground year after year as though teaching were merely insistent drill on traditional materials. In general, however, formalism in school work is condemned whenever it appears. All who think about education are in agreement in holding that formalism is not to be tolerated.

When the McMurry brothers wrote *The Method of the Recitation*, they made it perfectly clear that pupils ought to be led to generalize. They were not satisfied with glib repetitions of statements borrowed from authority. They were seeking to make knowledge vital and productive. When John Dewey wrote *The School and Society*, he pointed out that children are naturally interested in construction and communication and that all school work should aim to strengthen and utilize these natural interests rather than impose artificial forms of thinking or insist on parrot-like repetitions of meaningless words and phrases.

The McMurrys, Dewey, and a host of other workers who have been active in building up the educational system since 1890 have rendered a service of inestimable value in making formalism in teaching forever unacceptable There is some danger that this positive and highly significant victory over formalism will be overlooked because the methods of attacking formalism are so different that their common purpose is lost from view. Formalism is from its very nature uniform in its methods. The new education, which appeals to the many-sided nature of the learner, is not limited to a single procedure. There are many ways of stimulating pupils. It is doubtless true that some ways are more likely to be beneficial than others, but it is always better to arouse the thinking of pupils than merely to conduct routine drills.

As soon as it is recognized that many methods of teaching have the same purpose and are therefore commendable, the pettiness of some of the modern disputes about how to teach becomes evident. Why should the inventor of one system of teaching geography fall on his competitors with sticks and staves and make a loud noise as though the war between particular methods were a major concern of all men? The fact is that the differences between the geographies of today are trivial as compared with the differences between the geographies which were used when I went to school and even the least interesting of the geographies of the present. The important fact for the world at large is that geography has improved enormously in the past few decades.

I have sometimes thought that most of the meetings of educators ought to be executive sessions to which no reporters are admitted. If Author A must vituperate Author B or if an advocate of Method X must consume the time of other educators telling in detail what a brilliant thinker he is and how stupid the rest of the educational fraternity seems to him to be, there probably should be a platform from which he may express his ego. Someone has said that the soapbox is the salvation of democracy because it permits harmless explosions of ideas which need not be taken seriously. After the self-gratifying papers of educators have been presented in the private sessions which I have recommended, a few clear statements of the fundamental achievements of education might be permitted in open meetings to which the public is invited. Some of the present-day agitation which leads parents to believe that educators know less than did Ichabod Crane would in this way be allayed.

The argument of this paper is not an argument for compromises between warring groups of educators. There are, I am bound to say, methods of combating formalism which seem to me to be of a type that my own recommendations forbid me to discuss in public. I am perfectly clear, however, that all or nearly all the methods now in use are parts of a great onsweeping movement which in due course will accomplish the high purpose that the reformers of 1890 had vaguely in mind. Present-day quarrels are the temporary incidents of historical progress. They seem to us large and important because they are near at hand.

If we leave the conquest of formalism and turn to a second example of confusion resulting from overemphasis on disagreements, we can readily give another demonstration of the advantages of concentrating attention on fundamentals. We are all proud of the fact that the United States is the home of the science of education. We are gratified that we are not controlled in our local school systems by any dominant and domineering central authority, as are the educators of Europe. We are at liberty to experiment, and, because of this fact and because of our eagerness to know whether our experiments are helping us to make progress, we have evolved techniques for exact measurement of results. We use scales in handwriting and tests in arithmetic and reading, and we have developed standards to which anyone may appeal in evaluating educational procedures. It would seem that the science of education ought to bind us together in a consolidated brotherhood of objective-minded devotees of a common cause.

The facts are such as almost to shake one's confidence in human nature The author of a certain spelling scale keeps his audience waiting when he is about to present the instrument which he regards as perfect while he enumerates all the shortcomings of earlier spelling scales. To be sure, neither the most modern investigator nor those of whom he is critical would for a moment consider adopting the practices in teaching spelling which Rice found in use in 1897 No maker of a spelling textbook would under any conditions neglect the findings of Ayres. Every move that has been made in the field of spelling instruction in recent years is in the right direction. There may be, and probably are, slight deviations to the right or the left from the path that will ultimately be followed, but American education is on the way and on the way in a perfectly direct line. The science of education is such an advance over mere personal judgment as a proper guide in the selection of words to be taught in spelling that there can never be any turning-back from what has been achieved.

The results of the science of education have at times been misused and misinterpreted just as have the results of all the other sciences. Communities which were informed in the early days of the survey movement that the pupils in their schools were not accomplishing what the older generation fondly hoped would be accomplished turned on superintendents and teachers and held them responsible. There were not a few educators in those early days who would have impeded the development of the science of education with perfectly clear consciences because of the social harm which resulted from its application.

The misuses of the science of education are by no means limited to the lay public. A few years ago the letters I.Q. were accepted in many quarters as a sure guide to the grouping of children in school classes. Not only so, but it was held in some quarters than an I.Q. of 85 was legitimate ground for refusal to admit an adolescent youth to the secondary school. There is no need of enumerating further the many sins which were committed in the name of the intelligence quotient and justified by appealing to its infallibility.

Certainly no candid student of educational progress would for a moment attempt to cover up the mistakes which have been made in interpreting the results of scientific measurement of school operations. The difficulties of using a science should not, however, eclipse the science itself or make one overlook the importance of cultivating the science.

When one reads the educational literature of 1890, one is impressed by the fact that opinion ruled the educational system, that committees gathered around the table and ventured to make pronouncements on many subjects although, as we now know, some of those pronouncements were without form and void. Today, as the merest tyro in education understands, it is not safe to make any assertion unless one has some objective evidence with which to support what one is saying. Time has been marching on, and a new spirit and temper have come into education. So significant are the changes which recent years have witnessed in the attitudes of educators that it is perfectly certain that, when the educational history of this period is written, the characteristic which will be noted as outranking all others is devotion to the scientific study of school problems Minor differences in methods of scientific inquiry will be forgotten. The main fact will stand out clearly and distinctly.

One could wish that educators were somewhat more tolerant of one another. Here again I would not be misinterpreted as arguing in favor of compromises. I believe in the most vigorous defense of each view which a student of education holds as a result of his investigations. I believe that there should be valiant blows struck in the defense of every conclusion which seems to be justified by objective evidence. The plea which is here made is that publicity be so managed that science shall not suffer from the disagreements between scientists. The fact is that the marked progress which has been made in recent years in the refinement of methods of teaching and of school administration would never have been possible if it had not been for the science of education.

The conquest of formalism and the development of the science of education are achievements of the first magnitude. They ought to unite educators into an enthusiastic group of co-workers confident that they can overcome all difficulties. We turn now to the consideration of a third domain of controversy, one which is consuming at the present time much of the energy of educators and of the general public. The area of disagreement which is here referred to can be described briefly by saying that there is grave uncertainty as to how education is to be financed.

In dealing with school support, we must distinguish sharply between two questions: Shall there be a broad, comprehensive plan of education or a narrow, limited plan? What are the sources from which financial support is to be drawn? These are not questions which educators alone are discussing. Newspapers and taxing authorities are asking them. The Congress of the United States and the legislature of every state in the Union are attempting to answer them. The interesting point for the purposes of our present discussion is that the disagreements in this area of dispute are curiously complex. Parents want a broad education for their children. Taxpayers are, as a group, disposed to argue in more or less emphatic terms for limitation of the school program. School people are in favor of an enlargement of the program but are not in agreement as to the form which this enlargement shall take. For example, some educators favor emphasis on vocational education and are doubtful about the wisdom of traditional courses, while other educators are very critical of all forms of vocational instruction. When taxpayers need arguments against the schools, they quote educators who have expressed themselves as opposed to the introduction of vocational courses into the curriculum, or, on the other hand, they quote the advocates of vocational education to prove that there should be a reduction in the amount of instruction of the conventional type included in the present curriculum.

The many conflicting views about the breadth of education are paralleled by an endless variety of ideas about the source from which school support is to be derived. Farmers are opposed to taxes on real estate. People with large incomes are opposed to income taxes. People who live in districts with high property values and correspondingly low tax rates are in favor of deriving support for schools from local taxation. People in districts with low assessable values demand support for schools from the state or federal government. Educators sympathize sometimes with one group, sometimes with another. They differ as to sources of support although they are in essential agreement with respect to the necessity of a broad, modern educational program.

There is no area of disagreements in which it is so difficult as in this to distinguish between that which is trivial and transient and that which is fundamental. It is indeed true that, if the public is not brought to some acceptable basis of action with regard to support, there is imminent danger that the progress of education will be seriously impeded. When educators are combating formalism or devising and administering scientific tests, something goes on even though there is competition and even though there is exchange of bitter criticism. When educators make an effort to secure financial support for schools, action by the public is the essential end at which they are aiming. Anything that prevents action seems highly important no matter how trivial it may be when considered by itself.

In view of the urgent character of the problem of securing support for schools, educational leaders have sometimes shown intolerance of views that differ from those which they themselves hold. They have laid complete plans which have seemed to them expedient and likely to produce results and have demanded the withdrawal of all dissent.

Anyone who overrides opposition and is inhospitable to experimental methods of solving social problems assumes grave responsibilities. Educators have often found in the past that, when they have pushed through in the face of popular opposition plans which they have regarded as advantageous, they have prevented the development of that wholesome public understanding of schools which is the only sure foundation of permanent support. After all, is it not better for educators to make a clear case for a broad, modern educational program—indeed, to make this case as many times as may be necessary to gain popular approval—and lay less stress than they often do on their theories as to the way in which support is to be secured? The schools exist in response to the demands of parents for opportunities for their children. Educators can legitimately emphasize the need of support, but they have a right to demand that society assume the responsibility for determining the ways in which support is to be secured. If educators assume the whole responsibility for making plans for the support of schools and for securing the adoption of these plans, they will foster lethargy on the part of the patrons of the schools. There is some evidence that lethargy has been cultivated in social groups as a result of the methods of campaigning which educators have adopted in the past. It cannot be too urgently contended that the patrons of schools, that is, the general public, must be aroused, not allowed to expect the educators to do everything that is necessary to maintain the schools. It will be especially disastrous if the lethargy of the patrons goes further than neglect and becomes resistance to the domination of the educators. It is poor educational policy to relieve anyone of a duty which he should perform.

I believe that opposition to the expansion of educational opportunities exists today in powerful centers of influence. I live in a city where the curtailment of school facilities has gone on systematically for a number of years. There was a time when teachers' organizations enforced their will and dominated the situation. Instead of educating the public, the teachers' organizations forced the city again and again to do their bidding. The result is a city without understanding of its educational needs and without a feeling of responsibility for meeting these needs.

I have presented the problem of securing financial support for schools because *I am convinced that fundamentally this problem is* exactly like the problems of banishing formalism and cultivating a science of education. *In all three cases which have been discussed* up to this point, progress has been made because progress is the result of essential agreements. All three cases prove that there is among educators a core of sound agreement. Surrounding this core of agreement there is a body of divergent, conflicting views which must be tolerated because they supply the raw materials out of which progressive adjustments can be experimentally developed. If educators can be induced to magnify and emphasize the points of agreement, the points on which there is disagreement will be seen to be in reality of secondary or tertiary importance. As time passes and opportunity for consideration is provided, the great central issues will stand out in the conspicuous positions which rightfully belong to them. The accepted formula for meeting these issues will be experimentation and critical evaluation of results of experimentation.

So confident am I of the validity of the statement that emphasis on fundamentals and experimentation with details will lead to the solution of educational problems that I venture to carry the discussion into three fields in which education is now seeking to adjust differences but is without conspicuous success in its efforts.

The first of these fields is that of vocational education. It is, I am sure, agreed on all sides that the industrial conditions in this country are such that young people will on the average attend school in the future longer than they have in the past. It is also generally agreed that the instructional program of the schools must of necessity undergo some kind of change in order to accommodate itself to the large percentage of pupils who do not intend to enter the professions or literary or scientific vocations. That there is agreement with regard to the desirability of reorganizing the curriculum is apparent when one listens to the advocates of either vocational education or traditional education. Each party to the discussion is voluble in its advice to the other. Both want changes, and both are critical of present conditions.

It certainly seems rational, in view of the universal demand for the reconstruction of the school curriculum, to expect intelligent educators to stop emphasizing their differences and to attack the problems of vocational education in an experimental and conciliatory attitude. The President of the United States is so fully aware of the fact that a new plan of vocational education must be developed in order that young people may be prepared for their practical careers that he has organized a committee which is trying to find a way of bringing schools into proper and co-operative relations with both industrial organizations and the other social institutions. This committee includes in its membership industrialists, representatives of labor, and educators. It will shortly make recommendations which will undoubtedly influence American education in a fundamental way. It is my firm belief that, if we educators had been wise in our day and generation, we should have long since accomplished what the President's committee is trying to accomplish. When the history of vocational education is written, it will reveal a long record of controversies of which no one can be proud. Those who have administered the program of vocational education during the past two decades have emphasized at every point their opposition to the long-established practices of the schools. Representatives of the conventional courses have either shut their eyes to the obvious needs of young people or insistently and obstinately defended traditional forms of instruction. It is quite in keeping with the facts to say that on both sides there has been dogmatic intolerance. A basis of agreement is difficult to find because the differences of opinion with regard to vocational education have been allowed to accumulate and have been exaggerated until now there is the necessity of intervention from outside the educational ranks.

I believe that it can be asserted without fear of contradiction that the most important duty facing the educational system of this country is to find a way of adjusting instruction to the needs of modern society. I believe also that the one and only way to meet this duty is for educators to unite. By the word "unite" I do not mean calling a caucus and demanding that everyone accept the solution proposed by the dominant party. By "unite" I mean coming together and making perfectly clear the points on which all are agreed. "Unite" also means allowing anyone who has a promising idea the opportunity to experiment with that idea. Pursuit of divergent lines of experimentation is the best possible way of bringing out the devices which will most effectively meet the existing demands. Experimentation should always be accompanied by rigorous evaluation of outcomes. If educators can be persuaded to experiment vigorously with devices and to evaluate results without prejudice, the problems of vocational education and of general education can be solved. Anyone who refuses to participate in tolerant experimentation and study of outcomes is guilty of blockading the path of progress. Excessive emphasis on points of disagreement is the strongest evidence of unwillingness or inability to deal rationally with social problems. The community of educators ought to be quick to mete out the penalty of public condemnation to anyone who is guilty of undue emphasis on disagreements.

Another field in which the formula of concentrating on agreements can and should be applied is that of instruction in the social studies. When the framework of the present curriculum was erected, the need of instruction in the social studies was not acute. Society was comparatively simple in its structure, and the home and the church assumed the major responsibility for cultivating in children the virtues of social-mindedness. Today the situation is different, and there is urgent necessity that the schools take an important part in making pupils intelligent about society and its organization. So far as I know, there is no dissent from this view. Differences of opinion begin to appear, however, the moment one insists on a particular method of procedure or on a particular body of instructional material.

A demonstration of the disastrous consequences of disagreement was recently given by the Commission on the Social Studies. In 1929 the American Historical Association assembled a group of educators and representatives of political science, economics, sociology, and history and assigned to this group the task of discovering ways of correcting the generally recognized deficiency in social instruction in the public schools. For five years the commission held frequent meetings and discussed the problem which it had been created to solve. It employed experts to investigate a variety of relevant topics and report their findings. In this way it made available a great deal of valuable information about social studies and about schools. The commission did very little by way of direct experimenting with methods of teaching. It did not stimulate schools to try one or another of the possible programs suggested by those who are eager to promote the introduction of social studies into the curriculum. When it came to the preparation of the final report, disagreements loomed so large that the declaration of policy which the commission adopted was not signed by four important members.

It is, of course, fruitless to speculate what might have happened if the Commission on the Social Studies had spent its resources in experimenting and in evaluating the outcomes of its experiments. It seems clear, however, that the future will have to proceed by some method other than that adopted by the commission. The need of instruction in the social studies is even more pressing today than it was in 1929, when the American Historical Association organized its commission. If educators can be induced to experiment more vigorously than they have in the past, to evaluate the outcomes of their experiments, and to move forward in the directions in which progress seems possible, the curriculum can be enriched in spite of disagreements with regard to collectivism or any other trend in society.

It is perhaps important, as a reinforcement of the plea for experimentation which has been made throughout this paper, to call attention to the fact that in most social situations there are several modes of procedure—not merely a single mode—which can be advantageously followed. It is conceivable, for example, that the social studies might be built on a foundation laid in geography. It is conceivable that some genius acquainted with anthropology might use primitive cultures as a means of gradually making children in the schools aware of the importance of the institutions and modes of life which make up modern civilization. It is possible that pupil government in a school might be so organized and operated as to lead pupils to an understanding of society. In all these cases the end would be social-mindedness, but the means of reaching the end would be different. If educators could fix their thinking on a common goal, great gain would come to the educational system.

It must be admitted that one difficulty with the method of solving educational problems here advocated is the natural human desire on the part of individuals to attach their names or the names of their institutions to particular plans. In the early days of all the sciences, the discoverer of a law had the satisfaction of seeing his name attached to that law. As the sciences have matured, individuals have claimed less and less credit. They have recognized that the discovery of a law is a product of social co-operation, not a personal achievement. If one notes the fact that every educational test is labeled by its maker with his own name or the fact that every variation in method of teaching is designated as so-and-so's plan of instruction, one must conclude that education is in a very immature stage. Pride of authorship and eagerness for prestige are not conducive to concentration of attention on fundamentals. They are petty distractions quite as fatal to progress as disagreements with regard to theory.

By way of illustration of the harm which comes when questions about credit and jurisdiction are the main themes of consideration, we may refer to recent happenings in government. There has been much criticism by educators of the efforts of the federal government, operating through the National Youth Administration and other agencies, to do something for young people who are out of school and for other young people who would be out of school if it were not for the aid given by the National Youth Administration. I have heard it said with great emphasis that the federal government is encroaching on the constituted authority of the educational departments of the states by giving stipends to high-school pupils and to college students and by making regulations under which the disbursements are made. I have myself been disposed to ask why the federal government does not seek to develop a closer relation between educational institutions and the camps of the Civilian Conservation Corps. I have no disposition to defend the position that what is being done in the name of relief is the final or even the most expedient solution of the problems of youth. I am quite certain, on the other hand, that something had to be done and done without delay. It seems to me fair to admit that the adolescent boys who are out of school and unemployed constitute a national problem with which the educational authorities of states and communities have not dealt and do not know how to deal. It seems to me fair to admit that the National Youth Administration has done everything that could possibly be done to decentralize the administration of aid to high-school pupils and college students. I believe that the agencies which are needed to give vocational guidance and aid in placement to young people are either nonexistent or inadequate. When the federal government stepped in and created special agencies to make up for the deficiencies in the educational system, it was attempting to deal with a problem which had to be solved in some way. I do not believe that there is a single educator in this country who would deny for a moment that an emergency existed and still exists in this country with respect to young people. I have views with regard to jurisdiction, and I dare say that many of the members of this audience have very definite personal views on the subject. The conclusion which I have reached after comparing my own views with those of others is that it is expedient and just that we all recognize the efforts of the federal government as educational experiments of the highest importance. The camps of the Civilian Conservation Corps have shown that something can be done to restore morale and establish regular habits of living and working in boys who left school in many cases because they were dissatisfied with what was there offered them. The socially beneficial tasks which high-school pupils and college students are asked to perform in return for the aid which they receive are experiments which may lead to the discovery on a large scale of the advantages of mixing responsible labor with academic courses. It may be that the program of the National Youth Administration will show that the number of profitable undertakings in which high-school pupils and college students can participate is limited. The experiment of mixing work and study may even prove that there is no advantage in such a combination. On the other hand, the efforts of the federal government may lead to highly valuable modifications of the educational procedures of the country. If we can all unite in asking for a critical evaluation of the experiments that are being tried and if we open-mindedly seek to reorganize educational practices in this country at every point where experimentation shows that they need to be changed, then and only then will the disadvantages of disagreement be overcome and the advantages of experimentation be realized.

By citing a number of definite examples, I have attempted to show that beneath the disagreements which divide educators into warring groups there are fundamental purposes and ideas which may be made the basis for co-operation and agreement. There is an emotional coloring to all disagreements which destroys perspective and even blinds men to obvious common grounds for constructive action. There is ample justification for urging the members of our profession to give consideration to agreements in order that we may develop an attitude of tolerance toward one another. If we can magnify the principles on which we believe alike, we will view without emotion the differences in theory and practice which now loom large in our thinking. The development of a professional spirit of co-operation among school people is indeed important, but it is by no means the only advantage which is to be derived from emphasis on fundamentals. The public relations of the profession will be vastly improved if the public at large becomes convinced that there has been a meeting of minds among those who are in charge of the schools. The ordinary citizen does not understand what is going on when one group of educators says that the high schools are neglecting their duty and lowering the standards of scholarship and another group of educators, equally competent, asserts that the American high school is the very bulwark of democracy, an institution which is raising popular intelligence and freedom of thinking to a level never attained in the older civilizations. The fact is, of course, that both groups are right. High schools have a long way to go before they become perfect embodiments of the ideal; they can improve scholarship and can accomplish under proper guidance far more than they do at the present time. It is also true that they represent one of the most forward-looking movements that the world has ever witnessed. These statements about the high school are not incompatible; they are supplementary to each other. Taken together, they indicate the direction in which education is advancing and should advance. Frankness with the public, which supports the high schools, need not jeopardize to any degree whatsoever the program of development of the high schools provided frankness is discriminating and describes the situation with proper emphasis on essentials.

As it is with the high school, so is it with all the other divisions of the educational system. Satisfaction and dissatisfaction can properly be expressed in one and the same paragraph and on one and the same platform.

By way of summary, may I point out in a few words the great achievements and the momentous problems of education which have been touched on in this paper. Education has in recent decades carried on valiant and victorious warfare against formalism It has established and made permanent a new, scientific attitude, which insures the penetrating investigation of all school problems and the direction of educational policies on the basis of the results of investigation. It has brought the people of this country to a realization of the fact that an enriched program of education is necessary and that such a program requires large financial support. The problem of proper support of education is not solved, but it is clearly stated, and out of the present disagreements as to methods of securing support is sure to issue a constructive policy. Other problems which are recognized as being of major importance and requiring cooperation for their solution are the modification of the school curriculum so as to establish an equilibrium between vocational education and general education and the introduction of civic education of an effective type into the instructional program. There are, it is true, petty jealousies about jurisdiction, about who is to be the chief executive in providing and regulating aid for pupils. These jealousies seem absurd when the problem of taking care of unemployed young people is faced as one of the most difficult problems with which American society is confronted.

The consideration of such facts as have been reviewed must lead all competent thinkers to a realization of the genuine progress which has been achieved and of the fundamental unity of educational thought and effort. It remains for educators to show their faith in their cause and in each other by putting emphasis in the future where it belongs—on major agreements in theory and in practice

DIAGNOSIS OF ARITHMETIC DIFFICULTIES

CLAUDE L. WILLIAMS
Wentworth School, Chicago, Illinois

RUTH L. WHITAKER
Scott School, Chicago, Illinois

The provision of efficient and economic instruction in the fundamental processes of arithmetic has long given serious concern to students of education. In spite of diligent efforts on the part of teachers and administrators, a large number of pupils, year after year, pass through the elementary school, the high school, and even the college with little skill in the manipulation of numbers. The large number of failures resulting from arithmetic deficiency is not only a serious item of expense to the schools and the pupils, but the prospective employer and the general public adopt a very critical attitude, at times, concerning these unsatisfactory results. Suggested solutions for the difficulties are constantly being offered. Some of the reasons commonly given for the failures are poor methods of instruction, the abstract manner of presenting the number combinations, the presentation of the combinations before there is understanding of arithmetic situations, teaching arithmetic before there is a readiness on the part of the pupil, and deadening repetition without proper motivation or adequate variety of instruction. Beyond question, much failure in arithmetic may be attributed to irregular attendance, to frequent transfer from school to school, or, at times, to double promotions.

Such comments as these, made by a conference group of eleven elementary-school principals in Chicago, in co-operation with their district superintendent of schools, led them to assume the task of investigating the arithmetic difficulties in their respective schools on the south side of Chicago. The purpose of the study was not merely to give assistance to particular children failing in arithmetic but also to determine the characteristic deficiencies and to set up appropriate remedial measures.

The schools represented in the project are located in neighborhoods of varied environments and diverse populations. In three districts the population is almost entirely negro. In two it is fairly well divided between negro and white. In one school of white pupils there is a large percentage of transients. In the five remaining school districts the population is made up largely of small home-owners, many of them representing the second generation from northern Europe. Regardless of the personnel, each school had, in its middle and upper grades, a number of pupils who were not succeeding in arithmetic because of deficiency in the four fundamental processes. Preliminary discussion indicated that some of the schools showed trends toward certain characteristic errors but that many fundamental weaknesses were common to all the schools. The principals recognized the immediate need for a careful diagnosis of difficulties before progress in remedial measures could be made.

Because of their deficiencies in arithmetic, five pupils from each half-grade, Grades IV B to VIII A, in the eleven schools were chosen for diagnosis. The pupils were not of low intelligence, nor were they necessarily failures in other subjects. The 516 children finally reported in the study were distributed as follows: Grade IV B, 51 pupils; Grade IV A, 50 pupils; Grade V B, 53 pupils; Grade V A, 54 pupils; Grade VI B, 51 pupils; Grade VI A, 56 pupils; Grade VII B, 53 pupils; Grade VII A, 50 pupils; Grade VIII B, 42 pupils, and Grade VIII A, 56 pupils.

For the purpose of diagnosing the individual difficulties, the Buswell-John Diagnostic Chart for Fundamental Processes in Arithmetic was administered to all the pupils. Since the procedure in this test is to have the child speak aloud as he does his work, the test must be given individually. The pupil does his work and describes his procedure aloud, while the teacher jots down his progress and notes the types of errors that the child is making. In order that the diagnostic experience might be shared with the maximum number of individuals, the tests in each school were administered in part by the principal and in part by the teachers of the respective grades. In this way more than a hundred persons participated in selecting, testing, and reteaching the pupils.

The classification of errors in the four fundamental processes

TABLE I

PERCENTAGES OF PUPILS IN GRADE IV B TO GRADE VIII A HAVING DIFFICULTY WITH VARIOUS SKILLS IN ARITHMETIC

Difficulty	Grade IV B	Grade IV A	Grade V B	Grade V A	Grade VI B	Grade VI A	Grade VII B	Grade VII A	Grade VIII B	Grade VIII A	All Grades
Addition:											
Errors in combinations	80	68	74	81	78	82	64	68	81	80	76
Counting	75	64	74	65	47	54	47	44	50	32	55
Added carried number last	33	32	32	52	57	52	36	42	48	61	45
Forgot to add carried number	41	32	25	43	24	37	34	24	36	29	32
Repeated work after partly done	25	36	26	48	41	54	30	18	43	50	37
Added carried number irregularly	14	12	9	20	14	23	11	18	36	23	18
Wrote number to be carried	33	30	19	22	22	25	25	18	29	21	24
Irregular procedure in column	29	26	32	31	24	37	32	20	48	32	31
Carried wrong number	18	24	23	28	14	25	34	20	26	21	23
Grouped two or more numbers	14	14	23	15	20	20	13	10	36	21	18
Used wrong fundamental operation	31	26	15	26	8	18	4	6	14	5	15
Lost place in column	25	20	21	31	20	18	10	16	19	27	21
Subtraction:											
Errors in combinations	76	58	60	74	63	62	51	72	50	54	62
Did not allow for having borrowed	33	38	40	56	35	36	47	34	55	37	43
Counting	47	44	47	39	33	30	21	14	26	16	32
Errors due to zero in minuend	41	38	23	39	22	34	25	26	17	27	29
Said example backwards	29	30	30	24	35	27	13	4	29	20	24
Subtracted minuend from subtrahend	61	44	21	19	22	21	13	4	17	9	23
Failed to borrow; gave zero as answer	24	34	11	24	20	7	2	6	7	2	14
Added instead of subtracting	24	22	15	15	10	11	8	4	12	5	12
Error in reading	33	14	17	20	6	11	13	0	7	11	13
Used same digit in two columns	29	22	13	13	8	9	4	8	2	4	11
Derived unknown from known combination	4	8	2	7	8	5	4	4	5	9	6
Omitted a column	12	12	13	24	16	2	4	4	5	14	11

Multiplication:											
Errors in combinations	82	76	55	74	57	77	58	54	86	37	65
Error in adding the carried number	22	26	30	39	45	66	34	38	74	32	40
Wrote rows of zeros	10	22	32	39	39	55	43	14	50	30	34
Carried a wrong number	22	20	21	48	31	36	15	30	43	27	29
Errors in addition	12	24	40	33	31	45	30	22	40	27	30
Forgot to carry	31	32	34	31	16	34	17	20	21	12	25
Used multiplicand as multiplier	29	18	17	24	20	23	23	28	43	27	25
Error in single zero combinations, zero as multiplier	18	14	15	41	24	32	15	12	26	20	22
Errors due to zero in multiplier	10	38	30	50	35	48	25	24	21	23	31
Counted to carry	18	12	17	35	27	30	15	18	12	16	20
Omitted digit in multiplier	16	14	8	30	22	30	13	20	12	14	18
Errors due to zero in multiplicand	33	32	23	33	29	12	13	10	21	12	22
Division:											
Errors in combinations	88	76	60	78	61	70	53	54	40	46	63
Errors in subtraction	20	30	30	50	24	57	51	44	45	46	40
Errors in multiplication	8	10	36	48	41	61	45	30	50	50	38
Used remainder larger than divisor	8	18	36	39	35	46	34	18	38	21	29
Found quotient by trial multiplication	8	8	23	31	24	39	32	26	36	39	27
Neglected to use remainder within problem	29	30	23	31	24	14	19	2	12	9	19
Omitted zero resulting from another digit	24	16	32	50	24	37	19	20	29	25	28
Omitted digit in dividend	22	40	28	48	29	32	23	28	24	36	31
Counted to get quotient	24	12	21	20	16	20	13	12	19	5	16
Repeated part of multiplication table	33	32	23	26	25	20	4	10	17	12	20
Used long-division form for short division	4	8	13	37	24	52	19	26	43	34	26
Omitted final remainder	20	36	23	33	27	21	23	22	12	14	23

employed by the authors of the tests was used. The fact that instances of practically all the types of mistakes recorded by the test authors were discovered to some degree in all the schools and in nearly all the grades indicates that the classification involved the typical errors in these schools and that the examiners were alert to the mistakes. In addition to the regularly classified errors, many singular and awkward procedures were recorded.

In the Buswell-John tables the errors fall under twenty-eight heads in addition, twenty-four in subtraction, thirty-four in multiplication, and thirty-five in division. In this article only the twelve difficulties most often noted in each process will be discussed. The other items were more or less scattered and of individual nature, while the twelve listed seem to give valuable generalization.

Table I shows that in each of the processes the leading difficulty resulted from errors in combinations, more than three-fifths of the children making such errors. Another weakness appearing in all the processes was the habit of counting. Zero difficulties were common. In subtraction 29 per cent of all the children made mistakes because of zeros in the minuend; in multiplication four types of difficulties with zero appeared among the difficulties with the twelve highest frequencies; and in division 28 per cent of the children made errors resulting from the zero difficulty.

Many of the errors were simply the result of carelessness, or poorly established habits, or of efforts to make short cuts. In addition, for instance, were found frequent recurrences of such mistakes as, "Forgot to add carried number," "Repeated work after partly done," "Grouped two or more numbers." Thirty-two per cent of the pupils examined forgot to add the carried number. Perhaps there is a direct relation between this error and the fact that 45 per cent of the pupils habitually waited until they had added a column before adding the carried number. It was also found that 12 per cent disregarded column position, a like percentage omitted one or more digits, 10 per cent made errors in reading numbers, and the same percentage made errors in copying numbers.

A most distressing situation revealed by the tests is that the upper grades made no better showing than the lower grades. Table I shows that in the process of addition the pupils in Grade VIII A proved themselves better than the pupils in Grade IV B in only four of the listed error-causing items. In seven of the addition errors recorded, the percentages of pupils making errors in Grade VIII A were greater than the corresponding percentages in Grade IV B. The averages of the percentages for addition given in Table II indicate that the greatest percentages were found in Grades VIII B and V A. It is interesting to note that the grade having the best record, Grade VII A, is followed, chronologically, by the grade having the poorest record, Grade VIII B.

TABLE II

RANK OF GRADE IV B TO GRADE VIII A IN EACH PROCESS ACCORDING TO AVERAGE PERCENTAGE OF PUPILS MAKING ERRORS (ONLY TWELVE ERRORS OF HIGHEST FREQUENCY CONSIDERED)

RANK	ADDITION		SUBTRACTION		MULTIPLICATION		DIVISION	
	Grade	Average Percentage	Grade	Average Percentage	Grade	Average Percentage	Grade	Average Percentage
1	VII A	25	VII A	15	VIII A	23	VII A	27
2	VII B	28	VIII A	17	VII A	24	IV B	27
3	VI B	31	VII B	17	VII B	25	V B	29
4	V B	31	VIII B	19	IV B	25	IV A	29
5	IV A	32	VI A	21	V B	27	VII B	30
6	VIII A	34	VI B	23	IV A	27	VIII A	31
7	IV B	35	V B	24	VI B	31	VI B	32
8	VI A	37	V A	30	VIII B	37	VIII B	33
9	V A	39	IV A	30	V A	40	VI A	43
10	VIII B	39	IV B	34	VI A	41	V A	45

The slight improvement in the habit of counting is discouraging. In the process of addition 50 per cent of the pupils in Grade VIII B were still using this slow method. Counting on the fingers, tapping with the pencil, patting with the foot, counting objects in the room and on the desk were some of the more common devices employed. Even more ingenious and more elusive methods of counting are recorded later. It appears that the pupils adopt these varied devices of counting to avoid possible criticism from the teachers

In subtraction the improvement was more regular than in addition, but grades with low percentages of pupils making errors were employed by the authors of the tests was used. The fact that instances of practically all the types of mistakes recorded by the test authors were discovered to some degree in all the schools and in nearly all the grades indicates that the classification involved the typical errors in these schools and that the examiners were alert to the mistakes. In addition to the regularly classified errors, many singular and awkward procedures were recorded.

In the Buswell-John tables the errors fall under twenty-eight heads in addition, twenty-four in subtraction, thirty-four in multiplication, and thirty-five in division. In this article only the twelve difficulties most often noted in each process will be discussed. The other items were more or less scattered and of individual nature, while the twelve listed seem to give valuable generalization.

Table I shows that in each of the processes the leading difficulty resulted from errors in combinations, more than three-fifths of the children making such errors. Another weakness appearing in all the processes was the habit of counting. Zero difficulties were common. In subtraction 29 per cent of all the children made mistakes because of zeros in the minuend; in multiplication four types of difficulties with zero appeared among the difficulties with the twelve highest frequencies; and in division 28 per cent of the children made errors resulting from the zero difficulty.

Many of the errors were simply the result of carelessness, or poorly established habits, or of efforts to make short cuts. In addition, for instance, were found frequent recurrences of such mistakes as, "Forgot to add carried number," "Repeated work after partly done," "Grouped two or more numbers." Thirty-two per cent of the pupils examined forgot to add the carried number. Perhaps there is a direct relation between this error and the fact that 45 per cent of the pupils habitually waited until they had added a column before adding the carried number. It was also found that 12 per cent disregarded column position, a like percentage omitted one or more digits, 10 per cent made errors in reading numbers, and the same percentage made errors in copying numbers.

A most distressing situation revealed by the tests is that the upper grades made no better showing than the lower grades. Table I shows that in the process of addition the pupils in Grade VIII A proved themselves better than the pupils in Grade IV B in only four of the listed error-causing items. In seven of the addition errors recorded, the percentages of pupils making errors in Grade VIII A were greater than the corresponding percentages in Grade IV B. The averages of the percentages for addition given in Table II indicate that the greatest percentages were found in Grades VIII B and V A. It is interesting to note that the grade having the best record, Grade VII A, is followed, chronologically, by the grade having the poorest record, Grade VIII B.

TABLE II

RANK OF GRADE IV B TO GRADE VIII A IN EACH PROCESS ACCORDING TO AVERAGE PERCENTAGE OF PUPILS MAKING ERRORS (ONLY TWELVE ERRORS OF HIGHEST FREQUENCY CONSIDERED)

Rank	Addition		Subtraction		Multiplication		Division	
	Grade	Average Percentage	Grade	Average Percentage	Grade	Average Percentage	Grade	Average Percentage
1	VII A	25	VII A	15	VIII A	23	VII A	27
2	VII B	28	VIII A	17	VII A	24	IV B	27
3	VI B	31	VII B	17	VII B	25	V B	29
4	V B	31	VIII B	19	IV B	25	IV A	29
5	IV A	32	VI A	21	V B	27	VII B	30
6	VIII A	34	VI B	23	IV A	27	VIII A	31
7	IV B	35	V B	24	VI B	31	VI B	32
8	VI A	37	V A	30	VIII B	37	VIII B	33
9	V A	39	IV A	30	V A	40	VI A	43
10	VIII B	39	IV B	34	VI A	41	V A	45

The slight improvement in the habit of counting is discouraging. In the process of addition 50 per cent of the pupils in Grade VIII B were still using this slow method. Counting on the fingers, tapping with the pencil, patting with the foot, counting objects in the room and on the desk were some of the more common devices employed. Even more ingenious and more elusive methods of counting are recorded later. It appears that the pupils adopt these varied devices of counting to avoid possible criticism from the teachers.

In subtraction the improvement was more regular than in addition, but grades with low percentages of pupils making errors were still followed by grades with higher percentages. Table I shows that the percentages of pupils in Grade VIII A who failed to allow for borrowing, who derived an unknown from a known combination, and who omitted a column were larger than the corresponding percentages in Grade IV B. Table II shows that, as in addition, Grade VII A had the lowest average percentage of pupils making errors in subtraction, followed by Grade VIII A.

Table II shows that in multiplication Grade VIII A made the best showing, while Grade VI A stood at the bottom of the list. In division Grade VII A was again in the lead, and Grade V A this time ranked lowest.

In addition to the mistakes that fall definitely within the classification of the authors of these tests, many strange and erratic errors occurred. Some of these mistakes indicated decided ingenuity on the part of the pupils and, in the consistency with which they were followed, prove that, although failing in some phase of arithmetic, the children were often clever in their thinking processes. Several children added simple columns on scratch paper as shown on the left. After this laborious process the sum of the 27 was written under the original column. Some cases of proceeding from left to right were found. At least one of these was the case of a boy who wrote with his left hand, a condition which may or may not have accounted for the awkward procedure. In subtraction he started at the left, changed the numbers of the minuend to care for the borrowing, and then proceeded to subtract from left to right. In the example shown at the left, after writing 6483, he crossed out the 6, 4, 8 and wrote 5, 3, 7 above them and then subtracted. Some individual work with this child made it possible for his final report card to show a rating of "good" at the end of the year. To get the sum of 53 and 8, one girl exhausted her fingers and spent time running her eyes over the room and counting desks, pictures, lamps, gloves, and many other objects. A fourteen-year-old pupil who did not know her tables worked out the multiplication by means of addition.

$$\begin{array}{r} 6\\ 9\\ 7\\ 5\\ \hline 27 \end{array} \qquad \begin{array}{r} 6\\ 9\\ \hline 15\\ 7\\ \hline 22\\ 5\\ \hline 27 \end{array}$$

$$\begin{array}{r} {}^{537}\\ 6483\\ -4589\\ \hline 1894 \end{array}$$

In the process of subtraction, borrowing is difficult for many children. One boy in Grade VI A had no idea of borrowing. So long as the lower digit in each place was smaller than the digit above, he secured correct answers. When he found a digit below that was larger than the one above, he found the difference in each case between the two digits and wrote the result below. In the example at the left he said: "5 from 8 is 3, 2 from 9 is 7, 8 from 4 is 4. Bring down the 4."

$$\begin{array}{r} 4498 \\ -\ 825 \\ \hline \end{array}$$

Confusion of processes and of language gave emphasis to the need of training in clear English expression. One sixth-grade child used the language of division when multiplying. In multiplying 4 by 2, she said, "2's in 4 equals 8." Another child used the language of division when subtracting, thus: "3's in 5 equals 2." Other cases of careless expression showed the danger of permitting children to proceed without checking their language.

SUMMARY COMMENTS

A study of these lists of errors raised many questions: Do the results confirm the stand of those educators who declare that the teaching of abstract numbers starts too early in the experience of many children? Have many of the difficulties been the result of wrong pedagogical procedure? Has sufficient allowance been made for individual differences? Should more time be given to remedial work? Can the regular teacher afford to give the time requisite to these problem cases in mathematics? Would more work at the blackboard, with the pupil speaking out as he proceeds, help the teacher to analyze the difficulties of the child and so forestall many of the problems arising? Do the pupils in the upper grades become so involved in the attempt to learn intricate processes, such as fractions, decimals, and percentages, that they neglect or become careless in applying the skills of the fundamentals? Is the explanation of the poor showing in the upper grades to be found in the possibility that the mistakes become established and more fixed as the children pass from grade to grade? Should more arbitrary and uniform procedures be laid down for the teachers to follow? There is need for much study before these questions can be answered satisfactorily.

It seems evident from the tests that there is an irregular development in learning the fundamental processes, that the pupils learn certain of the arithmetic skills without mastering others. Until the particular skills causing the difficulty are designated, no progress can be realized in improving the achievement of the child. Real diagnosis of the child's weaknesses has become essential. The experience of the Chicago principals, moreover, gives conclusive proof that diagnosis is an individual matter. Group testing shows that the pupils are failing to secure correct results, but it does not disclose what specific skill or skills are causing difficulty. Patient, individual study of how a child moves through the complex maze of the arithmetic processes discloses the deficiencies, the partially established habits, and the bad habits of the pupil. Just as the physician notes all the symptoms of his patient and charts each evidence of improvement or failure, so must the teacher record all the symptoms of the child who is sick in his study of arithmetic. There is no short cut in such a study; it must be thorough and systematic, with no jumping at conclusions. While a prognosis or prediction of the outcome may be of service, it should not be mistaken foı an understanding of the difficulties. Pursuance of drill in bad habits is most unfortunate; it fixes the wrong habits, of which the child becomes a victim. When the instructor has found the difficulty, improvement and recovery may be confidently expected. In fact, the difficulties sometimes are so simple that they at once dissolve into thin air. Another gratifying thing about such a diagnosis is that it may be made easily and interpreted intelligently by the classroom teacher.

PARADOXES IN SOCIAL-STUDIES INSTRUCTION

C A. HARPER
Illinois State Normal University

In considering the axioms of good teaching techniques, one is often struck by the danger of applying these too literally. One is also occasionally amused, if not amazed, at the results which come from applying certain rules of general method to the separate subject-matter fields. Modern developments in education have, of course, indicated that each subject-matter field has its own special method and that little remains which may be called general method. Even in the field of special method certain paradoxes appear which seem to contradict some usually accepted principles (accepted by the educationist). Here are a few of these paradoxes which I have selected from notes taken while visiting teachers engaged in teaching the social studies.

1. *The more often a teacher does a thing, the less effectively he does it.* In spite of the saying that practice makes perfect, practice in teaching, in many cases, simply makes the teacher dull and uninteresting. This result is especially apparent when a teaching technique becomes a formula and that formula in itself becomes an object of worship. In visiting young and comparatively inexperienced teachers, I have noticed some splendid results in the application of certain teaching techniques. When revisiting these teachers after the lapse of a few years, I have found that, although the self-confidence of the teachers had been greatly augmented and some mechanical imperfections in the teaching technique straightened out, yet the outcomes were decidedly less effective than in the previous period. The answer that "a new broom sweeps clean" is not entirely sufficient to account for this apparent contradiction to the old axiom that practice makes perfect. The best teaching technique becomes the poorest when used all the time. Every teacher should vary his procedure to avoid monotony on the part of the pupils and routine mechanization on his own part.

2. *The best means of individualizing instruction is thoroughly to socialize it.* In many schools a great effort is being made to meet individual differences by individualized instruction. This practice sometimes defeats its own purpose. It must be remembered that the individual is merely a "bundle of participations." The best way to find what the individual needs is to watch him in group participation, and the best method of overcoming individual deficiencies is found in better group adjustment. Just as sociology has found that there is no conflict between individualization and association, so we as teachers must realize that our care for the individual is not a matter of making a technique for his instruction but of seeing to it that he participates normally in the socialized situation. This necessity comes to mind because the social studies represent perhaps the most ideal subject-matter area for socialized procedure. In this case, method and objectives completely coincide; that is, we are endeavoring to teach group participation and the method of teaching it is, of course, group participation.

3. *The best questions are those asked by the pupils.* In courses in education it used to be the rule that a great deal of time was taken up in discussing the merits of good questions and the technique of questioning to be developed by the prospective teacher. Fortunately not so much of this discussion is heard at the present time, and most educators have come to realize that good teaching technique consists in stimulating the pupils to raise questions. The form in which the questions appear may be, and usually is, decidedly crude. In fact, one is suspicious immediately when the pupil presents a question that is nicely phrased and meets all the prerequisites of a good question. The questioning attitude is the thing that teachers are after, not the particular interrogatory sentence. This paradox is merely a part of the general proposition that good teaching is never in evidence and that the teacher who makes the greatest impression is the one who says the least.

4. *Better two poor textbooks than one good book.* This paradox seems rather startling until one realizes the textbook slavery of most high-school instruction. Textbooks are becoming better and more interesting, and a great many teachers say, "Why bother with supplementary reading and all forms of library work so long as it

is impossible to cover all the rich material in our own textbook?" The answer is that the major attitudes and skills to be derived from teaching the social studies are dependent on the use of various types of printed material. The best textbook imaginable taught by the best possible teacher would fail to secure over one-third of the outcomes which are expected from the social studies. On the other hand, it might be possible to secure very good results from the use of two rather poor textbooks. Differences of interpretation, of emphasis, and of selection of evidence might be used to develop critical attitudes and skills in the use of evidence.

5. *History, which is considered by most pupils to be a subject which will strain their memories, requires much less abstract memorization than any other subject in the curriculum.* In most subjects there are a number of facts that must be abstractly memorized. There are no particular reasons or natural associations to aid recall; a sheer act of memory is required. In chemistry and physics, in botany and zoölogy, in trigonometry, in English, and in the foreign languages, there is a great deal of material of this type. History, on the other hand, presents a connected story. There is no more an exercise of rote memorization than there is in trying to recall what you did yesterday or on your last birthday. The sequence of events and the many associations make of history a sort of collective past or collective memory to supplement our individual past. When pupils get the continuity of the thing, there is no reason why they should have to memorize the dates by repeating over and over a series of numbers. In fact, so far as I can see, history is the only subject in which there is no need of the exercise of any abstract memorization.

6. *The poorest place for a "wall map" is on the wall of the classroom.* In visiting many classes in high-school history, I am impressed with the splendid collection of maps that are in evidence and the generally poor use that is made of them. The maps are usually used in connection with the old-fashioned type of recitation. They are found in the recitation room. They are usually jabbed at with a pointer by both teacher and pupil, the person in possession of the pointer searching rather aimlessly around until his eye lights on the name of a particular place that he desires to find. When the name is seen, the jab is made with an accompanying feeling of relief

and satisfaction. The map should be used in connection with the study or laboratory period, and the best position in which to use the map is to place it flat on a table with north to the north and south to the south. If, in connection with a presentation of material, geographical data are needed, a sketch map on the blackboard, made by teacher or pupil, is much more effective than the search-and-jab process.

7. *The best way to learn about the present is to study the past.* Teaching history backward is always attractive to the person who knows little about history. It seems to be good pedagogy to proceed from the present, which is presumably known and real to the pupil, to the past, which is comparatively unknown. However, the actual fact is that, in starting with the present and going to the past, the teacher is violating a fundamental pedagogical principle: he is proceeding from the complex to the relatively simple. Moreover, what leads us to believe that the present complex economic, political, or social scene is familiar and real to the high-school or the elementary-school child?

One of the most attractive fallacies in the whole field of teaching the social studies is this very idea that it is possible to reverse the chronology. Everyone of course is interested in teaching the pupils to understand the present, and every teacher is more or less impatient with the necessity of building up the background without which the present is a "big, booming, buzzing confusion." There is, however, a great deal of confusion in thinking with regard to the techniques of accomplishing this laudable purpose. Our problems, of course, come from the present, but, to secure the answers, we can no more work backward step by step than we could use such a procedure in solving a problem in algebra or arithmetic. It is only after we have solved our problem and have arrived at the answer that we can trace the process backward, and then our purpose is merely to analyze our logical process and not to secure a better understanding of our answer. The prevalent confusion in thinking is due to the realization that much factual teaching has little to do with realities of any kind. The overemphasis on the laws of historical continuity and on the value of continuity is not the weakness in the poor methods of teaching history. On the contrary, if the history teacher apparently has no thought of the present world, one of the best methods for making his teaching vital is to cause him to bear down on the continuous chain of causal relationships, not trying to walk backward but trying to push steadily forward.

Another consideration in this paradox is the fact that, when the present problem in society becomes acute (that is, focused enough to become a matter occupying the attention of the press and the radio), when, in other words, the crisis breaks, the stage of propaganda has already set in. The emotional element has so entered the equation that a sane start is almost impossible even if we could work backward from the contemporary printed and spoken words. Preliminary survey of a problem, when it becomes so extended that it takes in a great deal of the available current material, becomes so complicated and so overcast with foggy thinking that what feeble tentacles can be sent into the past are entirely inadequate to anchor the problem to a built-up development.

8. *Nothing is so out of date as the latest news story.* If teachers try to concentrate on the immediate present, they are likely to center on the ephemeral and to be unable to see the woods for the trees. The old axiom that nothing is so stale as yesterday's newspaper is a truism that every social-studies teacher should ponder. A pending bill before Congress, an apparent crisis in a European nation, or an act of aggression on the part of an Asiatic power, displayed prominently on the front page of a newspaper, may be an epoch-making incident, but it may have no significance whatever and may even be a false alarm. There is, however, an up-to-dateness and a vital modern significance to be found in a study of the formation of the Constitution or an examination of the principles of Jacksonian democracy which is certain to be important to the pupil in the future as well as in the present. There are certain constants in the American equation, and these do not depend on what is news today. They will serve, however, as filters or testers in determining the really significant aspects of the immediate trends.

9. *Most of the finishing and polishing done by the teacher results in undoing practically all the good that has been done* Splendid work developed by the pupils in the social-studies laboratory or in a discussion group is often ruined by the teacher's desire to summarize and

to repeat the findings of the class. Nearly all teachers have an almost uncontrollable tendency to say the last word. They wish the class to understand clearly that certain definite understandings or objectives have been accomplished, and they feel that they must state in the best possible words the final impression which is to remain with the pupils. Perhaps they have already, in some sort of preview, told the pupil exactly what he is going to find out, and now they insist on restating what has been found out. As a result, the pupil realizes that he must show some signs of activity but that there is really no serious obligation to do any thinking or to come to any conclusion. The teacher already has spoiled the fun of the thing by revealing what he is to look for, and, when the problem is over or the discussion is done or all the reports are in, the teacher will tell him exactly what he needs to remember and what he will be held for on the final day of reckoning.

It is a rare teacher, indeed, who does not feel that he has had a successful day when he himself has made a good presentation or a clever summary. Pedagogy has long taught that it is poor procedure to repeat answers. Teachers need to remember this principle on a larger scale. Better by far to leave some misunderstandings in the mind of the immature citizen than to do the final and most important act of thinking for him—that is, the crystallization of the conclusions. As teachers, possibly the best way to cure ourselves of this serious fault is to realize that the process which the pupil undergoes is more important than the factual information that he receives. A sense of humor will help us also to realize our oracular tendencies and will minimize somewhat the feeling of infallibility that leads us to insist on the last word.

10. *Teachers usually penalize the pupils for practicing the principles that are desired as outcomes of the social-studies teaching.* What is the worst crime that the pupil can commit? In a great many schools I am afraid that it is *co-operation.* That is, teachers condemn so-called "copying" as a decided moral lapse. The whole marking system is ruthlessly individualistic and develops the most antisocial traits. The system induces the pupil to attempt to please the teacher and guess at what the teacher wants, while entirely ignoring any responsibility that he may have to the group.

In spite of some attempts to disguise the fact, it is nearly always apparent that children are talking to the teacher and listening to the teacher. They are encouraged to be self-centered and selfish. Few rewards, indeed, are offered for aiding a weaker brother. Pupils are not taught to respect the opinions of their classmates, and they learn little about democratic procedures.

All these rather haphazard comments merely indicate that teaching is an art and not a trade. Many teachers—many techniques. There is no one right way to teach anything. This statement does not mean that all study of method is wasted time, nor does it mean that the artist cannot profitably study the techniques of the old masters. It rather indicates that the matter of method deserves much more profound and critical attention than the average teacher in training is willing to grant it.

VOCABULARIES OF RECENTLY PUBLISHED PREPRIMERS

W. GEORGE HAYWARD
Hohokus Township Public Schools, Mahwah, New Jersey

NANCY M ORDWAY
School Number Two, Mahwah, New Jersey

During the past several years the schools in Mahwah, New Jersey, have used a variety of preprimers after the introductory chart-building period. The same preprimer has not necessarily been used every year, nor has the same preprimer been used with each of the several reading groups in any class.

It is felt that the teacher, in developing the charts during this introductory period, needs a knowledge of the vocabulary of the several preprimers to be used. This information gives a wider scope in vocabulary choice for the chart materials and better direction in terms of the transition from chart to book. Knowing the words most frequently used in the several preprimers enables the teacher to develop a basic vocabulary. Through this approach it is believed that the child has a better background for wide and independent reading in the several preprimers.

In carrying out this program in the beginning reading instruction, the teachers in Mahwah have found the study by Gross[1] most helpful. However, since her investigation covered preprimers published between 1927 and 1932, it was felt that knowledge was needed about the vocabularies of preprimers published later. The fifteen preprimers selected for the present study have been published since 1933. The books were selected at random, the purpose being to cover the field systematically. Most of the preprimers studied have been selected by the teachers for use in the Mahwah school system. The following fifteen preprimers were studied. They are arranged according to the year of publication.

---

[1] Aline E. Gross, "A Preprimer Vocabulary Study," *Elementary School Journal*, XXXV (September, 1934), 48–56

1. Henry Suzzallo, George Freeland, Katherine L McLaughlin, and Ada M. Skinner, *First Steps*. Fact and Story Readers. Chicago: American Book Co, 1933

2. Clara B. Baker and Mary Maud Reed, *Playmates*. The Curriculum Readers. Indianapolis, Indiana: Bobbs-Merrill Co, 1934

3. B R. Buckingham and Marguerite P. Dolch, *Let's Play*. The Children's Bookshelf. Boston: Ginn & Co, 1934.

4. Herman Dressel, M. Madilene Veverka, and May Robbins, *Tom and Ann*. The Laidlaw Readers. Chicago: Laidlaw Bros, 1934.

5 Katherine E Dopp, May Pitts, and S. C. Garrison, *Little Friends*. Happy Road to Reading Chicago: Rand McNally & Co, 1934.

6 Ullin Leavell, Elizabeth G. Breckenridge, Mary Browning, and Hattie Follis, *Friends at Play*. The Friendly Hour Chicago: American Book Co., 1935.

7. Julia Letheld Hahn, *Everyday Doings*. Child Development Readers. Boston: Houghton Mifflin Co., 1935.

8. Mildred English and Thomas Alexander, *Spot* Happy Hour Readers. Richmond, Virginia: Johnson Publishing Co., 1935.

9. Nila Banton Smith, *Tom's Trip*. The Unit-Activity Reading Series. Newark, New Jersey: Silver Burdett & Co., 1935.

10. Clarence R. Stone and Anne Lotter Stone, assisted by Ida Vandergaw, *Tom and Jip*. The Webster Readers. St. Louis, Missouri: Webster Publishing Co., 1935.

11. Grace E. Storm, *Nip and Tuck*. Guidance in Reading Series. Chicago: Lyons & Carnahan, 1936.

12. Mabel O'Donnell and Alice Carey, *Rides and Slides*. The Alice and Jerry Books. Evanston, Illinois: Row, Peterson & Co., 1936.

13. Mabel O'Donnell and Alice Carey, *Here and There*. The Alice and Jerry Books. Evanston, Illinois Row, Peterson & Co., 1936.

14. Ethel Maltby Gehres, *Everyday Life Pre-Primer*. Philadelphia: John C. Winston Co., 1936.

15. James S. Tippett, *Henry and the Garden*. Yonkers-on-Hudson, New York. World Book Co, 1936.

In the counting of the words all plural forms were considered as separate words. Possessive forms of words were included with the singular forms. All words, including titles of stories and directions, were counted. However, neither the words on the covers nor the words in the tables of contents were included.

In the combined vocabulary of the fifteen preprimers 350 different words appear—43 words fewer than the number in the combined vocabulary of the ten preprimers studied by Miss Gross. This decrease may indicate a narrowing of the vocabulary for materials published at this level. The total number of running words in all fifteen preprimers is 13,667.

In the ranking of the words, the word having the highest frequency of use was ranked 1. All the words with the same frequency count were given the same rank. Thus, while there were 350 different words, the lowest rank, because of these duplications, was 107.

The 311 words appearing four or more times are shown in Table I. The column "Number of Books" indicates the number of preprimers in which the word is used. Only three words (*a*, *mother*, and *the*) were used in all fifteen books. The range in the number of different words used in the several preprimers is from 35 to 85. The range in the total number of running words in a book is 188 to 1,677. All tabulations have been checked at least twice and appear to be correct.

Words with a frequency of less than four have been omitted from the table. The words appearing only once in all fifteen books follow: *clown*, *lights*, *love*, *paint*, *park*, *reads*, *stores*. The following words appeared twice in all fifteen preprimers: *bow-wow-wow*, *could*, *cross*, *daddy*, *his*, *laugh*, *makes*, *stops*, *them*, *workers*. The words appearing three times were: *another*, *back*, *bears*, *dress*, *feed*, *Frisky*, *grew*, *helped*, *helping*, *helps*, *how*, *Jocko*, *Jumbo*, *laughs*, *more*, *oil*, *paid*, *please*, *pulled*, *sings*, *waited*, *window*.

In addition to serving as a guide in making chart material, this study can also be a help in the selection of a book to follow a preprimer chosen for basal use. The teachers in Mahwah feel that many children profit from the reading of several preprimers, under guidance, before approaching the primer. When the second or succeeding preprimer is selected, such factors as interest and pictorial attractiveness must be considered, and these can be judged by an experienced teacher However, the vocabularies of the books should also be compared. The data in Table I show a wide variation in the words used in the books surveyed. A second preprimer from this group may be as difficult for the child to read as the first because of the lack of duplication of vocabulary. The challenge of the second book should be at a minimum in terms of the number of new words introduced. By comparing the vocabulary of the other books listed with the book selected as basic, a teacher can discover the order in which the books should be introduced to the children.

TABLE I

THE 311 WORDS USED FOUR OR MORE TIMES IN FIFTEEN PREPRIMERS, FREQUENCY OF USE IN EACH BOOK, RANK ACCORDING TO FREQUENCY OF USE IN ALL BOOKS, AND NUMBER OF BOOKS IN WHICH EACH WORD APPEARS

Word	First Steps	Playmates	Let's Play	Tom and Ann	Little Friends	Friends at Play	Everyday Doings	Spot	Tom's Trip	Tom and Jip	Nip and Tuck	Rides and Slides	Here and There	Everyday Life	Henry and the Garden	Total Frequency	Rank	Number of Books
a	22	21	39	13	26	70	19	9	24	7	10	30	28	4	5	327	6	15
after						35									16	51	58	2
airplane												1	9			10	98	2
airplanes												4	2			6	102	2
Alice						88						29	45			162	15	3
all								7	10							17	91	2
am	5		12	10		18			9					7		61	52	6
an		5														5	103	1
and	14		19	16	39	32		20	5	7	7	49	34	7	15	264	7	13
Andy					9											9	99	1
Ann				58												58	53	1
apple		7														7	101	1
apples			8													8	100	1
are		2			10	8			5	7						32	76	5
at		4			10		7					5	17			43	66	5
ate															13	13	95	1
away	5	9			9	9		20						5	12	69	46	7
baby	21			39			2			27						89	34	4
baggage									5							5	103	1
ball	9		10	25							9					53	56	4
beans															16	16	92	1
bear				12												12	96	1
bed				9					21							30	78	2
Ben						85										85	37	1
Betty	54		47											29		130	20	3
big	6		4		6				7			16	9			48	61	6
Billy							4	19								23	85	2
bird		5												11		16	92	2
black						11	2									13	95	2
Blackie						11										11	97	1
blue	10											3	16			29	79	3
boat												10	1			11	97	2
boats												6				6	102	1
Bob	42										37					79	39	2
bow-bow	2	4	5			6		23		5	4					49	60	7
box	11															11	97	1
boy	3	17				10	2									32	76	4
brown												6	12			18	90	2
bump								8								8	100	1
busy															5	5	103	1
but															11	11	97	1
butter			5													5	103	1
cabbage															16	16	92	1
cake		9	7													16	92	2

TABLE I—*Continued*

Word	First Steps	Playmates	Let's Play	Tom and Ann	Little Friends	Friends at Play	Everyday Doings	Spot	Tom's Trip	Tom and Jip	Nip and Tuck	Rides and Slides	Here and There	Everyday Life	Henry and the Garden	Total Frequency	Rank	Number of Books
called														7	15	22	86	2
came								6							11	17	91	2
can	19	15	18	27	8	25						4	8			124	22	8
cap	22												24			46	63	2
caps													13			13	95	1
car				12			4		21					8		45	64	4
cat			27		6	57		9								99	30	4
catch		28						6								34	74	2
cheep															24	24	84	1
chicken															7	7	101	1
chickens															26	26	82	1
circus		13					1									14	94	2
city									11							11	97	1
clowns		8														8	100	1
cluck															24	24	84	1
cock-a-doodle-do															8	8	100	1
color						12										12	96	1
come	1	9	19	10	29	20			8	20	9	20	23	7	5	180	12	13
comes	2				7						2	2	2			15	93	5
coming										21						21	87	1
conductor									6							6	102	1
corn		5														5	103	1
country									12							12	96	1
Dan					35											35	73	1
day								8						5		13	95	2
dear	5				5				5							15	93	3
did	10	24	11					7				6	4		29	91	32	7
dining									11							11	97	1
dinner									7							7	101	1
do			7										7			14	94	2
dog	12				11	45									2	70	45	4
dogs		8														8	100	1
doll				21	5			5	13							44	65	4
dolls					19											19	89	1
Dolly			11													11	97	1
down					5			4		12		22	23			66	48	5
draw						34	1									35	73	2
duck											8					8	100	1
ducks								10								10	98	1
early									7							7	101	1
eat			6											6		12	96	2
engineer									5							5	103	1
falls											4					4	104	1
fast										11	23					34	74	2
father	16		22	31		21			8	40	3	19	16	15		191	11	10
fence		7														7	101	1
filling														5		5	103	1
find	21		5	12		35				17						90	33	5

TABLE I—*Continued*

Word	*First Steps*	Playmates	Let's Play	Tom and Ann	Little Friends	Friends at Play	Everyday Doings	Spot	Tom's Trip	Tom and Jip	Nip and Tuck	Rides and Slides	Here and There	Everyday Life	Henry and the Garden	Total Frequency	Rank	*Number of Books*
Fluffy					10											10	98	1
fly		17														17	91	1
for	19	7	8	9	8	19		4	11	4	8			5	5	107	26	12
found						10										10	98	1
Fred			39													39	70	1
fun							7	7								14	94	2
funny		17			10		2	10			3					42	67	5
game									7							7	101	1
garden														5	40	45	64	2
Gary														62		62	51	1
gas														4		4	104	1
gave														4		4	104	1
get			5					9							10	24	84	3
getting														5		5	103	1
girl	5	12	5													22	86	3
give					4											4	104	1
go			10		5	6		18	12	26	6	21	18		1	123	23	10
going			2						6	30			3	11		52	57	5
good	16	11	13			9	2	5			5	10	4			75	43	9
good-by		6						6				4	7	5		28	80	5
got								10				8	10	6		34	74	4
grandmother									27							27	81	1
green						6	2						10			18	90	3
guess	4		12					9								25	83	3
had	6							1				10	4			21	87	4
has				8												8	100	1
have			14		10	10			13			3	13			63	50	6
he						16		12			13	19	11	19	60	150	17	7
heard															11	11	97	1
hello			8											5		13	95	2
help						12	5		7							24	84	3
helpers							5									5	103	1
hen															22	22	86	1
Henry															45	45	64	1
her								6								6	102	1
here	23	4	12	16	31	26				17	5	14	15		10	173	14	11
hill										5						5	103	1
him															11	11	97	1
ho		24														24	84	1
home								7	13			2	19	3		44	65	5
hop		8														8	100	1
house	4		20	15	14	31	2						14	9	10	119	24	9
houses					3		2						2			7	101	3
I	12	50	53	34	28	83	2	8	28			67	41	13	13	432	3	13
in	4		19	13	4	17	1	6	31			14	12	14	10	145	18	12
into									8						12	20	88	2
is	42	30	38	46	34	25			37	41	12	9	28	17	4	363	4	13
it	10		19	20		26		7			16		8			106	27	7
Jack							4									4	104	1

TABLE I—*Continued*

Word	First Steps	Playmates	Let's Play	Tom and Ann	Little Friends	Friends at Play	Everyday Doings	Spot	Tom's Trip	Tom and Jip	Nip and Tuck	Rides and Slides	Here and There	Everyday Life	Henry and the Garden	Total Frequency	Rank	Number of Books
Jack-a-Dandy					5											5	103	1
Jane					32		4									36	72	2
Jerry												29	36			65	49	2
Jip										33		2	13			48	61	3
Jo-boy								4								4	104	1
Joe					36											36	72	1
Judy											31					31	77	1
jump	16				16			19		8		6	2			67	47	6
jumped	8														9	17	91	2
jumps					2						13					15	93	2
keep															20	20	88	1
kitten	5	14														19	89	2
kittens								5				1	6			12	96	3
knocked														5		5	103	1
Laddie					19											19	89	1
laughed	4				5									3		12	96	3
let			7						5							12	96	2
letter									11							11	97	1
lettuce														12		12	96	1
light							4									4	104	1
like			28	3								29	14		13	87	36	5
likes				14			4				7	3	1			29	79	5
little	7	44	46	20	6		1		7		7	21	12		22	193	10	11
look			13	6	21						2	12	13			67	47	6
looked				6				5				9	15		3	38	71	5
lost			5													5	103	1
loves				7												7	101	1
made									6					6		12	96	2
make	11		4		6											21	87	3
man									6				3	10		19	89	3
Mary					44		4									48	61	2
may									11			3	1			15	93	3
May													30			30	78	1
me		34	5		16	28			5		6	12	7			113	25	8
meow			18													18	90	1
mew	6	6						16								28	80	3
mew-mew						13										13	95	1
milk	9		8													17	91	2
milkman	6															6	102	1
morning	11								5			3	5			24	84	4
mother	13	12	15	25	6	33	5	11	28	14	5	17	24	18	17	243	8	15
mouse		8														8	100	1
mud		5														5	103	1
must			9													9	99	1
my	13	8		10	19	11					3	7	13			84	38	8
name						14						2	1			17	91	3
Nancy									26							26	82	1
new				6												6	102	1
nibbled															11	11	97	1

TABLE I—*Continued*

Word	First Steps	Playmates	Let's Play	Tom and Ann	Little Friends	Friends at Play	Everyday Doings	Spot	Tom's Trip	Tom and Jip	Nip and Tuck	Rides and Slides	Here and There	Everyday Life	Henry and the Garden	Total Frequency	Rank	Number of Books
night									5							5	103	1
Nip											22					22	86	1
no		23	13			5		4							6	51	58	5
not		36	22	14	7	8		6	5				7		26	131	19	9
now						15										15	93	1
of								3							15	18	90	2
oh	9	14			14			21						11	2	71	44	6
on										5		5	7			17	91	3
one								6				10	7	4		27	81	4
other							4									4	104	1
out		19						7			6				39	71	44	4
over														13	9	22	86	2
paw								5								5	103	1
peas															16	16	92	1
Penny				33												33	75	1
picture	10						2									12	96	2
pig		12														12	96	1
planted														4		4	104	1
play	3	32	39	16	23	21					8	6	2			150	17	9
plays				8	4						6					18	90	3
Polly		63														63	50	1
pony		9														9	99	1
Postman	4															4	104	1
pretty								4					10			14	94	2
pull										7						7	101	1
pullman									8							8	100	1
puppy		16										17	5			38	71	3
put								2						6	7	15	93	3
quack								13								13	95	1
rabbit		7					3								21	31	77	3
rabbits								8								8	100	1
ran	8					34						13	10	7	27	99	39	6
read				7			5									12	96	2
ready									15					10		25	83	2
red	7		8			5	4				2	7	3			36	72	7
ride					21					13	3	52	13			102	28	5
rides											6					6	102	1
right									5							5	103	1
rooster															22	22	86	1
run	25	35		35	13	23		16		18	3				10	178	13	9
runs					5						25					30	78	2
said	44		80	14	58	94		13	31			38	56	31	24	483	2	11
Sandy					5				8							13	95	2
saw		2				10		7				22	21	4	22	88	35	7
says										24	25					49	60	2
school		8					3									11	97	2
seashore														6		6	102	1
see	13	18		20	12			7		15	8	5	24		6	128	21	10
seed														8		8	100	1

TABLE I—*Continued*

Word	First Steps	Playmates	Let's Play	Tom and Ann	Little Friends	Friends at Play	Everyday Doings	Spot	Tom's Trip	Tom and Jip	Nip and Tuck	Rides and Slides	Here and There	Everyday Life	Henry and the Garden	Total Frequency	Rank	*Number of Books*
sees				7												7	101	1
shall									5							5	103	1
she											9	14	28		49	100	29	4
Shep									7							7	101	1
shoo															5	5	103	1
sing				8												8	100	1
sleep			10	6												16	92	2
sleeps				5												5	103	1
sleepy	7															7	101	1
sniffed															4	4	104	1
so															12	12	96	1
some			7											10		17	91	2
something	9						12					22	14			57	54	4
Sport															32	32	76	1
Spot								34								34	74	1
station														5		5	103	1
stayed															4	4	104	1
stop		18														18	90	1
store			12				5					11	16	3		47	62	5
Sue											9					9	99	1
surprise			23													23	85	1
Tag	41															41	68	1
take									7							7	101	1
Teddy			11													11	97	1
thank	7			7	4									4		22	86	4
the	51	95	49	42	28	179	8	24	77	24	16	12	41	55	154	855	1	15
then														10	11	21	87	2
they					8			12						3	15	38	71	4
this				17	5				22		2	8	18	6		78	40	7
three							3					7	2			12	96	3
throws											4					4	104	1
Tibby	6															6	102	1
to	23	25	34	16	23	45	5		45	6	15	47	28	28	2	342	5	14
Tom				51					54	49						154	16	3
too			9	11							6	4	13	7	12	62	51	7
tracks															7	7	101	1
train									8	22	14		1			45	64	4
trains												4				4	104	1
tree			6			21										27	81	2
trunk									10							10	98	1
Tuck											10					10	98	1
turtle		4														4	104	1
two												7	6			13	95	2
up	7		8					15	7	12		22	24			95	31	7
us			9						5							14	94	2
visit									7							7	101	1
wagon										10						10	98	1
wake	4															4	104	1
walk		18														18	90	1

TABLE I—*Continued*

Word	First Steps	Playmates	Let's Play	Tom and Ann	Little Friends	Friends at Play	Everyday Doings	Spot	Tom's Trip	Tom and Jip	Nip and Tuck	Rides and Slides	Here and There	Everyday Life	Henry and the Garden	Total Frequency	Rank	Number of Books
walked												14	6			20	88	2
want		10	7	2	8							7	12			46	63	6
wanted						11			9							20	88	2
wants	2	25		6	4						6	1	3			47	62	7
was								14	16						13	43	66	3
watch															7	7	101	1
watched															5	5	103	1
watching															9	9	99	1
water		3												8		11	97	2
way					7											7	101	1
we		9	13		6	13				5					4	50	59	6
wee		29														29	79	1
went	4				12			10	15			7	14	12	3	77	41	8
what	3		11		13			14				16	19			76	42	6
where		21		14	11											46	63	3
white	7		24			9										40	69	3
Whitey						15										15	93	1
who			4			9										13	95	2
will		65	18		17	61	2	12	6	9				3		193	10	9
with		11	11	8	28	20			6	4	22	11	10			131	19	10
wrote									9							9	99	1
yes		10	12			9		6	7				6	4		54	55	7
you	26	39	20	14	21	43	5	13	17		4	3	16	8	9	238	9	14

SELECTED REFERENCES ON KINDERGARTEN-PRIMARY EDUCATION

KATHERINE L. McLAUGHLIN
University of California at Los Angeles

The references in this fifth annual list of publications on kindergarten-primary education appeared during the year between January 1, 1936, and January 1, 1937. The year 1937 commemorates the kindergarten centennial. Though established as an independent institution on the principle of education through development, a doctrine not emphasized in primary education a century ago, the kindergarten has not only won its way into the school system but has helped to modify the formality of the primary grades. It is worthy of note that items herein listed show a tendency to consider problems of child growth and adjustment; promotion and failure; and readiness for beginnings of curricular learnings in reading, arithmetic, art, music, literature, and science. These studies emphasize need for a unified program of early childhood education. The titles chosen for this year's list follow groupings used in previous lists: (1) general educational aspects; (2) organization, techniques, and curriculum; and (3) investigations and experimental studies.

GENERAL EDUCATIONAL ASPECTS[1]

167. BORGESON, F. C. "What Makes an 'Activity' Program?" *Progressive Education*, XIII (January, 1936), 50–53.

    Offers fourteen essentials of an activity program and stresses importance of "enlightened teacher guidance."

168. CHILDS, JOHN L. "Whither Progressive Education?" *Progressive Education*, XIII (December, 1936), 583–89.

    Establishes six principles as fundamental in progressive education: (1) functional conception of mind, (2) empirical interpretation of values and morals, (3) experimental naturalism, (4) activism, (5) educational provision for individuality, and (6) consideration of the whole individual.

---

[1] See also Items 353 (Caswell), 357 (Field), and 382 (Kandel) in the list of selected references appearing in the September, 1936, number of the *Elementary School Journal*.

169. COFFMAN, L. D. "A Special Plea for Education," *Educational Record*, XVII (July, 1936), 358–73.

Criticizes the "new education's" theory and practices for their disintegrating effects on pupils' attitudes toward mastering systematic knowledge.

170. DAVIS, MARY DABNEY. *Young Children in European Countries*. United States Office of Education Bulletin No. 2, 1936. Pp x+108.

Surveys schools for children below compulsory school age in eight countries, includes data concerning administrative responsibility, financial support, housing, teacher training, health, and nutrition work, and relates findings to like problems in this country.

171. DAVIS, MARY DABNEY. "Legislative Action for Young Children," *School Life*, XXI (March, 1936), 170, 176, 190.

Discusses legal obstructions that prevent distribution of state and local general funds for maintenance of schools for children below compulsory school age.

172. DAVIS, MARY DABNEY. "A Century of the Kindergarten," *School Life*, XXII (November, 1936), 67–68.

Reviews a century of progress in kindergarten education and relates its philosophy to the problems of the present nursery schools and primary schools of the newer type.

173. GESELL, ARNOLD. "The Growth Factor in Child Personality," *National Elementary Principal*, XV (July, 1936), 254–58.

Emphasizes progressive patterning of behavior, as observed at one-month intervals, in normal infants' reactions to building blocks. Points out that the same growth laws which mold the child's behavior with cubes affect development of his personality and indicate the fallacy of setting goals beyond the level of child maturity.

174. HANNA, PAUL. "Bibliography—Is Integration Another Educational Fad?" *Los Angeles School Journal*, XX (November 16, 1936), 24–25.

In response to teachers' requests, presents a bibliography of fifty titles

175 LOCKWOOD, MARGARET M. "Character Education Practices," *Educational Method*, XV (April, 1936), 361–65.

Surveys current practices in character education from "rewards" type to ethical behavior "for right's sake." Reports increasing tendency to utilize incidental day-by-day situations instead of planned projects.

176 MELVIN, A. GORDON. *The Activity Program* New York: Reynal & Hitchcock, 1936. Pp x+276.

Deals with the philosophy and practices of the activity program and gives outlines and goals for work from kindergarten through junior high school

177. MYERS, VEST C. "Is It Worth While To Send Your Child to Kindergarten?" *Educational Method*, XV (April, 1936), 388–89.

Eighty-eight first-grade children were studied over a period of one year. Superior progress is reported in subject-matter acquisition and in general adjustment for kindergarten trained pupils as compared with non-kindergarten trained children.

178. OTTO, HENRY J. "Educational Activities of the W. K. Kellogg Foundation," *Elementary School Journal*, XXXVI (April, 1936), 604–18.

Describes the services of the W. K. Kellogg Foundation in seven counties of southwestern Michigan in fulfilling the purpose of its establishment—to promote "the health, happiness, and well-being of children."

179. SYMONDS, PERCIVAL M. "Marks and Examinations as Factors in Personality Adjustment," *Personality Adjustment of the Elementary-School Child*, pp. 355–63. Fifteenth Yearbook of the Department of Elementary School Principals. Bulletin of the Department of Elementary School Principals, Vol. XV, No. 6. Washington: Department of Elementary School Principals of the National Education Association, 1936.

Analyzes arguments for and against traditional marking system and interprets new-type report cards as a change in emphasis from academic achievement to responsibility for well-rounded personality.

180. "Tendencies in School Enrolment," *Elementary School Journal*, XXXVII (December, 1936), 246–48.

Calls attention to the marked change in the "age structure of the population." Quotes from chapter ii, "Statistics of State School Systems, 1933–34," of the *Biennial Survey of Education in the United States: 1932–34*, which points out the decrease in enrolments in kindergarten and the first five grades for the period 1930–34.

ORGANIZATION, TECHNIQUES, AND CURRICULUM[1]

181. ABBOT, JULIA WADE. "Rhythmic Activity in the Kindergarten," *Childhood Education*, XII (May and June, 1936), 352–57, 402–5.

Analyzes a three-year study of children's spontaneous rhythmic activities and shows these activities to be basic in developing conscious control of bodily movements in response to music.

182. ANDRUS, RUTH, and ASSOCIATES. *Curriculum Guides for Teachers of Children from Two to Six Years of Age*. New York: Reynal & Hitchcock, 1936. Pp. viii+300.

Presents bulletin prepared by a committee on early childhood education Emphasizes child development rather than progress through arbitrary grade groupings. A guide for teachers of children of six to eight years old is in course of preparation.

---

[1] See also Items 364 (Kilpatrick), 367 (Norton and Norton), 368, 377, and 379 in the list of selected references appearing in the September, 1936, number of the *Elementary School Journal*; Items 460 (Howland), 467 (Freeman), and 475 (Conlon) in the October, 1936, number; Items 519 (Gunderson,) 532 (Detraz, Sibley, and Wyler), 533, 534, 541, 551 (Strickland and Stokes), and 563 (Waterman) in the November, 1936, number; and Item 49 (Taylor) in the January, 1937, number.

183. ARBUTHNOT, MAY HILL. "The Presentation of Literature to Children" and "Telling Stories and Reading Aloud to Young Children," *Childhood Education*, XII (March, 1936), 254–57, 281; (May, 1936), 347–51.

Considers selection of materials, techniques of presentation, and criteria for judging effectiveness of outcomes.

184. BARROWS, SARAH T., and HALL, KATHERINE H. *Games and Jingles for Speech Development.* Boston: Expression Co , 1936. Pp. 74.

Presents systematic practice exercises for speech development and training in phonics.

185. BAXTER, BERNICE. "Developments in Kindergarten-Primary Curriculum," *California Journal of Elementary Education*, V (August, 1936), 18–21.

Reviews developments in kindergarten and in Grades I and II that have been directly influenced by findings in experimental child study.

186 CHRISTIANSON, HELEN (Compiler.) *Music and the Young Child.* Washington· Association for Childhood Education, 1936. Pp. 32

Traces typical musical experiences of early childhood; stresses importance of experimentation with voice, body, and instruments, describes guidance at early levels; suggests materials; and analyzes teacher's role in developing musical experience for young children A bibliography is included.

187. DAVIS, MARY DABNEY. "Pupils' Progress Reports," *School Life*, XXI (January, 1936), 115, 132, 135.

Contrasts report cards in use prior to 1930 with those constructed during the period 1932–35 and comments on new trends. Gives a bibliography.

188. DICKSON, BELLE L. "Trends in the Teaching of Phonics," *California Journal of Elementary Education*, V (August, 1936), 51–58.

Discloses three general trends in study of recent reading manuals: (1) subordination of phonics to "meaning" goal; (2) adjustment of amount and kind of phonic instruction to individual needs; and (3) development of extensive sight vocabulary prior to beginning phonic instruction.

189. FITZPATRICK, KATHERINE. "A Preschool Visiting Program," *Childhood Education*, XIII (September, 1936), 26–30.

Describes a plan of bringing children into kindergarten for series of visits during term preceding enrolment

190. FOSTER, JOSEPHINE C., and HEADLEY, NEITH E. *Education in the Kindergarten.* Chicago American Book Co., 1936. Pp. xii+368.

Presents philosophy and practices in the education of children from four to six years old Deals with such aspects as health, creative self-expression, equipment, language, social science, and records.

191. *Graded List of Books for Children.* Compiled by a Joint Committee of the American Library Association, National Education Association, and National Council of Teachers of English. Chicago: American Library Association, 1936. Pp. x+162.

Includes more than a thousand annotated and priced titles arranged in three groups: Grades I–III, Grades IV–VI, and Grades VII–IX. The fourth revision of a compilation which began in 1915.

192. HARRISON, M. LUCILE. *Reading Readiness.* Boston: Houghton Mifflin Co., 1936. Pp. viii+166.

Surveys literature under following headings: factors influencing reading readiness, instruction promoting readiness, tests for readiness, placement, and remedial procedures. A bibliography is included.

193. HOBSON, JAMES R. "Reducing First-Grade Failures," *Elementary School Journal*, XXXVII (September, 1936), 30–40.

Discusses factors involved in successful reading achievement in Grade I.

194. HOCKETT, JOHN A. "Easy First Grade Reading," *Childhood Education*, XIII (December, 1936), 175–79.

Examines vocabulary of thirty-nine preprimers, primers, and first readers for general characteristics, trends, relative difficulty, and suitability of content to interests of class.

195. *Inexpensive Books for Boys and Girls.* Compiled by the Book Evaluation Committee of the Section for Library Work with Children of the American Library Association. Chicago: American Library Association, 1936. Pp. 44.

Lists seven hundred selected titles costing from ten cents to one dollar.

196. KALLEN, MIRIAM. *The Primary Teacher Steps Out.* Boston: Lothrop, Lee & Shepard Co., 1936. Pp. 242.

Describes step-by-step procedures in initiating an activity program in Grade I.

197. LANGDON, GRACE. "Nursery School-Kindergarten Education in Mental Health," *American Childhood*, XXI (June, 1936), 8–9, 48.

Stresses importance of opportunity offered in preschools for learning habits and attitudes of mental health under guidance.

198. MCDOWELL, ELIZABETH D. "Acquiring Good Speech Habits in Early Childhood," *Childhood Education*, XII (January, 1936), 168–72.

Discusses nature of speech proficiency and acquisition of desirable speech behavior. Reviews problems involved in creating appropriate attitude and habits.

199. MEARNS, HUGHES. "Language Artists in the Primary Grades," *Childhood Education*, XII (January, 1936), 178–81.

Points out the importance of creative expression in cultivating in young children "sensitiveness of eye and ear and spirit, ultimate appreciation of the best."

200. MORSE, MARY LINCOLN. "Current Trends in Kindergarten Stories and Verse," *American Childhood*, XXI (April, 1936), 10–11, 50–51

Analyzes stories and verse used in kindergarten and lists appropriate books and authors.

201. REED, MARY M. "Planning a Social Studies Program for Young Children," *Childhood Education*, XIII (October, 1936), 59–63.

Analyzes trends in social studies and argues for reorganization that centers in child development as an objective.

202. ROBERTS, MARGARET MANNING. "When 'The Play's the Thing,'" *Childhood Education*, XII (June, 1936), 394–98.

Points out value of dramatizations, characterizes suitable material, and describes practices

203. SMITH, CHARLES A., and JENSEN, MYRTLE R. "Educational, Psychological, and Physiological Factors in Reading Readiness," *Elementary School Journal*, XXXVI (April and May, 1936), 583–94, 682–91.

Co-ordinates experimental findings from various fields and emphasizes the problem of development from within the child rather than an enforcement of fixed standards of reading accomplishment. Suggests need of new-type nonreading curriculum at early grade levels.

204. STAFF OF THE DEVER SCHOOL "Living Social Studies—A Community Demonstration," *Childhood Education*, XIII (October, 1936), 72–78.

Describes co-operative effort of school and community in beautifying school grounds and shows the gradual evolution of a formal school organization into an activity program.

205. VEVERKA, M. M. "The Primary School," *Los Angeles School Journal*, XIX (April 27, 1936), 16, 38–42.

Describes the junior-school organization for pupils below Grade IV which is being tried out in Los Angeles public schools

206. WITTY, PAUL A., and KOPEL, DAVID. "Preventing Reading Disability: The Reading Readiness Factor," *Educational Administration and Supervision*, XXII (September, 1936), 401–18.

Summarizes findings of previous investigations and offers practical suggestions. Includes a bibliography

207. WOOD, STELLA LOUISE. "The Kindergarten Child and His Group." *Childhood Education*, XII (March, 1936), 258–60.

Deals with development of group consciousness in children of kindergarten age; describes techniques employed, and stresses significance of child's responsiveness at this age as an aid toward objective sought.

208. *The Young Child in the Museum.* Newark, New Jersey: Newark Museum, 1936. Pp. 28.

The answers of thirty-five museums to the question "Can museums successfully carry on activities for children from four to six years of age?"

INVESTIGATIONS AND EXPERIMENTAL STUDIES[1]

209. BREED, FREDERICK S., and RALSTON, ALICE L. "The Direct and Indirect Methods of Teaching the Addition Combinations," *Elementary School Journal*, XXXVII (December, 1936), 283-94.

Reports an experiment with comparable groups of first- and second-grade pupils using two methods of teaching the addition combinations. By direct method the one hundred addition combinations were taught as separate items; by indirect method they were taught in double-column addition.

210. DOLCH, E. W. "A Basic Sight Vocabulary," *Elementary School Journal*, XXXVI (February, 1936), 456-60.

Presents a basic sight vocabulary of 220 words, comprising all words, except nouns, common to three well-known vocabulary lists. The author maintains that all elementary-school pupils should know these words by sight.

211. DOLCH, E. W. "How Much Word Knowledge Do Children Bring to Grade One?" *Elementary English Review*, XIII (May, 1936), 177-83

Analyzes four principles for securing basic testing list and describes testing procedure and results.

212. FARLEY, EUGENE S. "Regarding Repeaters," *Nation's Schools*, XVIII (October, 1936), 37-39.

Reports series of correlation studies of retardation, showing that effort is discouraged rather than stimulated by nonpromotions because of confusion resulting from attendant maladjustments and sense of failure.

213. GATES, ARTHUR I., and BOND, GUY L. "Relation of Handedness, Eye-sighting, and Acuity Dominance to Reading," *Journal of Educational Psychology*, XXVII (September, 1936), 450-56.

The authors studied four reading groups: normal and retarded adults and normal and retarded first-grade pupils. Report that eye dominance, single-eye superiority in acuity, and hand dominance have no consistent relations to achievement in reading, pronunciation, reversal errors, or visual perception.

214. HOCKETT, JOHN A., and NEELEY, DETA P. "A Comparison of the Vocabularies of Thirty-three Primers," *Elementary School Journal*, XXXVII (November, 1936), 190-202.

Reviews earlier studies and presents "significant data regarding the vocabulary burden of thirty-three primers published between the dates of 1923 and 1935, inclusive"

---

[1] See also Items 383 and 384 (Northby) in the list of selected references appearing in the September, 1936, number of the *Elementary School Journal;* Items 409 (Carr), 411 (Durrell), 415 (Gates and Bond), 416 (Goodykoontz), 417 (Gray), 425 (Witty and Kopel), 427 (Witty and LaBrant), 449 (MacLatchy), 458 (Freeman, Gray, and Breed), 466 (Cutright), and 470 (Lourenço) in the October, 1936, number; and Items 527 (Wulfing) and 561 (Peck) in the November, 1936, number.

215. HOOPER, LAURA. "What about School Failures?" *Elementary School Journal*, XXXVI (January, 1936), 349-53.

The author studied 199 repeaters in Grades I and II and analyzed probable causes of failure in terms of physical, mental, socio-economic, and emotional factors

216 MILLER, WILLIAM A. "The Picture Choices of Primary-Grade Children," *Elementary School Journal*, XXXVII (December, 1936), 273-82.

Investigated children's preferences for color, line drawing, wash drawing, black and white illustration, full-color reproduction, and photograph, with subject matter constant.

17. MOTT, SINA M. "The Development of Concepts: A Study of Children's Drawings," *Child Development*, VII (June, 1936), 144-48

Presents summary of an investigation concerning the relation between formation of concepts and child's overt behavior.

218 RANKIN, ELIZABETH; BOYCE, ELLA RUTH; and MANWILLER, C. E. "Survey of Behavior Traits of Kindergarten Pupils," *Pittsburgh Schools*, X (May-June, 1936), 129-87.

Presents detailed data regarding changes which took place in the behavior traits of 666 kindergarten children.

219. REID, FLORENCE E. "Incidental Number Situations in First Grade," *Journal of Educational Research*, XXX (September, 1936), 36-43.

A study of social number situations recorded in school activities for first-grade entrants over a period of three months.

220. RUSSELL, NED M. "Arithmetical Concepts of Children," *Journal of Educational Research*, XXIX (May, 1936), 647-63.

Describes experimental method used "to discover in children four to eight years of age: (1) The responses to quantitative situations of *more* and *less*. (2) The understanding and use of words denoting *more, less, many, equal*, and *same* (3) The limits, perceptually, beyond which they cannot make distinctions between quantities (4) The manner in which they go about the task of making distinctions between quantities."

221 VAN ALSTYNE, DOROTHY; HATTWICK, LABERTA WEISS; and TOTTEN, HELEN. "A New Scale for Rating School Behavior and Attitudes," *Elementary School Journal*, XXXVII (October, 1936), 115-21.

Presents a scale consisting of thirteen situations selected, on the basis of statistical analysis, from thirty-three situations originally proposed Items are grouped under (1) co-operation, (2) social consciousness, (3) emotional security, (4) leadership, and (5) responsibility.

222. WAHLSTROM, EDDA L. "The Computational Arithmetic of Social Experiences of Third Grade Children," *Journal of Educational Research*, XXX (October, 1936), 124-29.

Investigates computational arithmetic involved in day-by-day experiences of third-grade pupils The procedure followed the same general plan used by G. M. Wilson in earlier studies

223. Wilson, Frank T. "Correlations of Information with Other Abilities and Traits in Grade I," *Elementary School Journal*, XXXVII (December, 1936), 295–301.

The author studied one phase of reading readiness by using correlations between two reading-readiness tests and seventy-six other measures, including mental tests and psycho-physical appraisals.

224. Wright, Wendall William. *Reading Readiness—A Prognostic Study.* Bulletin of the School of Education, Indiana University, Vol. XII, No. 3. Bloomington, Indiana: Bureau of Co-operative Research, Indiana University School of Education, 1936. Pp. 46.

Attempts to discover predictive factors for reading success among four hundred first-grade entrants in Bloomington public schools. Gives data on values of reading-readiness tests, pupil-rating scales, general intelligence tests, and chronological age in predicting reading ability.

225. Young, William E. "The Relation of Reading Comprehension and Retention to Hearing Comprehension and Retention," *Journal of Experimental Education*, V (September, 1936), 30–39.

Investigates children's reading difficulties and reports marked tendency for these to group around hearing and language difficulties rather than visual difficulties.

Educational Writings

REVIEWS AND BOOK NOTES

A symposium on educational administration.—Upon the retirement of Frank Ellsworth Spaulding as professor of educational administration at Yale University, his colleagues in the Department of Education and some of his former associates prepared the testimonial volume under review[1] as an expression of indebtedness to Professor Spaulding for his unselfish service to education and for his versatile contributions in the field of school administration. The volume consists of a series of twenty-one more or less related essays by as many contributors intended to constitute an appraisal or survey of the entire field of educational progress and school administration. A preface is contributed by Clyde M. Hill, chairman of the Department of Education, and an introduction by President James Rowland Angell. The final chapter consists of significant quotations drawn from the various writings of Professor Spaulding himself.

The scope of the essays is so broad that readers in many fields of education will find in the volume specific contributions of interest and value To avoid making the series of essays a mere collection of unrelated papers in education, each contributor undertook to relate his particular problem to administration. While considerable variation is noticeable in the quality of the essays, the series as a whole is commendable and the volume constitutes a unique addition to the literature in educational administration.

Students of school administration will be interested especially in chapter iii, "The Professional Preparation of Superintendents of Schools," contributed by Dean Henry W. Holmes of Harvard University. Persons aspiring to careers in public-school administration will find guidance in the conception of training for administration proposed by Dean Holmes, and institutions undertaking to provide training for school administrators will find objectives toward which training programs should be directed. Superintendents of schools, particularly, will derive much profit from the treatment of "Politics and School Administration" presented in chapter iv by Nicholas Moseley, superintendent of schools at Meriden, Connecticut. In the opinion of the reviewer, this penetrating analysis of the problems of politics in school administration is the outstanding contribution of the kind. Chapter ix, "Elementary Education and School Administration," by Bessie Lee Gambrill, of the Department of Education of Yale University, merits a much wider reading than the chapter is likely to receive in a book devoted to administrative problems. All teachers in elementary schools should read this superb exposition of the American elementary school.

---

[1] *Educational Progress and School Administration:* A Symposium by a Number of His Former Associates Written as a Tribute to Frank Ellsworth Spaulding on His Retirement from Active Service as Sterling Professor of Educational Administration in Yale University. Edited by Clyde Milton Hill. New Haven, Connecticut Yale University Press, 1936 Pp. xvi+400.

Space prevents the mentioning of the specific merits of the individual contributions of the other chapters of the volume. Many of the contributors occupy positions of influence and leadership in university education and educational administration. The problems selected for treatment in their several chapters are on the whole timely and significant, although some might have yielded to the more pressing problems of administration in institutions of higher learning. The omission of discussions of college and university administration is lamented by President Angell, who declares:

> . . . . it would be a pity to allow a book devoted so largely to administration to pass without insistence upon the critical importance of administration at the university level and the sad need of more definite opportunity for training in this field. At present the medieval apprentice system is in full force and most ineffectively. Whatever the next generation of college faculties may feel about a department of education, it is sincerely to be hoped that they may outgrow the prepossession that administration is merely a necessary evil, which under ideal conditions would disappear, and that consequently some provision may be made for training men in administrative work. At present we have to rely almost wholly on the chance discovery of an occasional individual possessing some native talent for the work, who then enters upon a longer or shorter period of trial and error activity, much of it characterized by needless and often disturbing blunders [pp. xiv–xv].

Educational Progress and School Administration will undoubtedly be accepted as a notable addition to the literature of public-school administration and generally regarded as a fitting tribute to the leader in education whom it is intended to honor.

WILLIAM C. REAVIS

A school program that meets the needs of modern youth.—The book under review[1] provides a description of the educational progress made during the past ten years in the Parker School District, a district which includes fourteen schools located in outlying communities of Greenville, South Carolina. The total population of this district is thirty thousand; the school population, seven thousand.

It appears that there are two important dates in the history of the Parker School District. The first of these is 1923, when these fourteen schools were consolidated into one district. Some person or persons at that time had the novel idea that consolidation should result in something more than mere change in school administration, that it should include the bringing-together of teachers and principals to plan constructively for the curriculum. Such insight merits reporting. The second date of significance is 1927, when Mr. Tippett made his first visit to the district. In the Parker District Mr. Tippett found an opportunity to try out under public-school conditions the procedures which had previously been developed in the Lincoln School of Teachers College. These procedures were reported by Mr. Tippett in *Curriculum Making in an Elementary School*. Mr. Tippett says that he would like to feel that *Schools for a Growing Democracy* is a worthy sequel to the earlier book, and he adds that each is the result of the efforts of teachers working in co-operation.

---

[1] James S. Tippett, in collaboration with the Committee of the Parker School District, Greenville, South Carolina, *Schools for a Growing Democracy*. Boston: Ginn & Co., 1936. Pp. viii+338. $2.00.

While there is still much to be done in the Parker School District, the progress that has already been made is most encouraging Here, apparently, is a school system of important proportions which believes—indeed, has demonstrated—that the development of a school program to meet the needs of modern youth can be an adventure. Neither tradition nor laissez faire was permitted to stand in the way of this group of teachers when something needed to be done. A demonstration school operating on Saturday mornings as a training center for teachers is illustrative of the willingness to disregard tradition in the interest of the task to be performed.

This book merits careful reading, not because it propounds any new philosophy (it does not), but because it embodies a thousand and one suggestions that other schools seeking to serve youth in a growing democracy could and should use.

C. L. CUSHMAN

DIRECTOR OF RESEARCH AND CURRICULUM
DENVER PUBLIC SCHOOLS

A Russian's contribution to American education.—There are men of experiment who only collect and use, and men of reason who spin cobwebs out of their own substance. Both are children of one-sidedness, said Francis Bacon years ago Each, however, he proclaimed, has something to contribute to the technique by which man approaches the truth in any field. The narrow experimentalist in education should tap the basic generalizations upon which his budding science rests, while the speculative philosopher should take his bearings always from established fact.

It is the reviewer's privilege to say a few words about a book[1] that refuses at every step to seek the educational millennium by the path of easy philosophic virtue alone. The author, interestingly enough, is a Russian gentleman whom the educational fraternity will welcome gladly to our shores, one who is busying himself not only with theoretical problems, but with the practical as well, for what he thinks should be done, he is trying to do in a school which is conducted by himself and his wife. In the language of a letter written by Professor Bagley, from which one may perhaps be permitted to quote without violating a confidence, "their American experiences have attuned them to the possibilities of a democracy profiting by the fine elements of the cultural heritage that their own aristocratic discipline reflected."

---

[1] B. B. Bogoslovsky, *The Ideal School*. New York: Macmillan Co., 1936 Pp xii+526. $2.50.

The book is notable for several features: (1) It presents educational theory in an attractive fictional form. (2) In the first hundred pages it provides a delightfully intelligent and amusing discussion of "progressive" theory and the alternative. (3) The remaining portions of the book take the reader from department to department in a school representing the author's attempt to approach an ideal organization.

It is refreshing to have a contribution of this character placed in our hands. All but a few misguided extremists will acclaim the balanced theory of the book; few will sanction all the detailed arrangements of the school. Educators, of course, are always safer when they keep within the confines of broad and glittering generalizations, but the courage and concreteness of Bogoslovsky are praiseworthy even when they cause a little of the wrath of opposition to rankle in one's soul.

May the author's tribe increase and his school become as a light on a hill for American teachers!

FREDERICK S. BREED

An appraisal of courses in education.—Our public-school system is the result of a slow, gradual evolution, its direction at any one period being modified by multiple forces and counterforces. Since, other things being equal, the teacher is the keystone of a good or a poor school situation, the preparation of teachers has been put very much in the spotlight by students of the problem, by administrative and supervisory officers, and by the teachers who "consumed" the college offerings. Linder[1] therefore undertook the problem of evaluating the topics covered by courses in education, psychology, sociology, and student teaching at the Western Illinois State Teachers College. The evaluation was made largely by securing "the judgments or reactions of a large group of teachers in service to the curriculum content as they experienced it in their pre-service training period at college, and as it functioned later in their work" (p. 2).

Linder's investigation involved (1) the analysis of the education curriculums into topics for the purpose of determining the extent and the nature of repetition and duplication, (2) an appraisal of the usefulness of each of these topics to teachers in service, and (3) the establishment of certain criteria for reorganization of the curriculum.

In chapter i the investigator painstakingly enumerates and organizes the many time-worn complaints leveled against typical courses in education, defines the terms used in his study, establishes certain basic assumptions for his approach to the problem, and clearly describes the nature of the study. Chapter ii is largely a description of the procedure used for deriving the 328 topics of the master check list sent to the graduates of the courses requiring two years, two and a half years, and four years, and to the Junior and Senior students. Chapters iii–vi, inclusive, deal with certain data about the graduates and the students who participated in the study and about the repetition and value of topics in the curriculums. A well-organized summary is presented in chapter vii.

---

[1] Roscoe George Linder, *An Evaluation of the Courses in Education of a State Teachers College by Teachers in Service.* Teachers College Contributions to Education, No. 664. New York: Teachers College, Columbia University, 1935. Pp. viii+156. $1.85.

The most serious limitation of the investigation is the fact that data were secured from only one institution. Since the study was limited in this manner, a more intensive appraisal might have been made of certain data on which recommendations were based. For example, the report on the scholarship of the participating alumni and students would have carried much more meaning if it had been accompanied by a statistical study of all the marks given by the faculty members involved. Since the marking of the check list required scholarship and depended on memory, the crucial point in the study was not well defended.

All the topics were confined to those covered by existing curriculums. A valuable supplement to the study might have been the suggestion of additional topics by teachers in service.

From the data secured for the study, several crucial issues in the preparation of teachers received some interpretation: (1) the need for an extension of present demonstration and practice-teaching facilities in order to create a professional readiness by reducing the gap between theory and practice; (2) the desirability of appraising present practices in differentiating the curriculums for prospective primary-grade and intermediate-grade teachers, which are based on the old concept of grade levels rather than gradual child development; (3) equal preparation for elementary-school and secondary-school teachers; (4) the need for co-ordinating the activities of the teachers' college with the public-school systems of the area served; and (5) closer co-ordination of the activities of the various departments within the institution.

This report is noteworthy chiefly because the investigator has presented a systematic approach to the study of the social utility, repetition, overlapping, and omissions of topics covered by courses in education. In addition, the need for close co-operation between faculty and alumni in appraising the value of the teachers'-college program was established.

EMMETT A. BETTS

OSWEGO STATE NORMAL SCHOOL
OSWEGO, NEW YORK

Some new, and good, reading.—New readers there are aplenty, elbowing one another and clamoring for attention, to say nothing of adoption. Occasionally an ingenious promising innovation appears, a novel idea, a new wrinkle; but by and large the school readers are as like as those legendary peas in the pod or the more recent "quints" in Canada.

Here is something different.[1] Nine-tenths of the material was written specifically for these books, and the other tenth had not appeared and will not appear, we are assured, in any other series of readers. But that is not all. The material was not produced by hack writers or by pedagogues as "easy information for slow readers"; it was produced by capable writers, many of whom deservedly rank high among contemporary authors for children and young people.

This freshness is, of course, the distinctive feature of the books. Other claims by the publisher, that they "offer 50 per cent more material than the average reader for the same price" and that the "vocabulary *control* was as carefully *maintained* [a horrible example of educational jargon, that!] as that of any other known series," may be examined—will be examined, never fear—by agents of rival publishers. The reviewer does not concern himself with these claims, but he asserts that here is a lot, and a varied lot, of new reading which is interesting to children of Grades VII and VIII and which in literary quality or authorial skill rises above the average stream of contemporary writing.

The material *is* contemporary: this fact is at once the weakness and the strength of the books: the weakness, because naturally it precludes the older, "classic" literature, a goodly ratio of which should be found in basal readers; the strength because we can be certain that the material will come closer home to contemporary children, will make a more immediate impact and appeal.

The material consists of both realistic reading matter and literature. The former deals with industry and business, science and nature, city scenes and primitive life, biography and history—most of it written with skill and charm and some of it interesting, even exciting. The literature comprises stories of animals, Indians, Chinese, Eskimos, pioneer life, home life, and other favorite themes. The books contain much action, much adventure, not a few thrills, and no strictly "meditative" pieces. Most of the stories are brief, but each book has one or two long tales of fifty to a hundred pages. There is little humor or nonsense, only twenty-five pages or so of poetry (all of it sheafed at the end of the volume), and, despite the claim of the publishers, almost no fantasy. Hence, while the content is good—much of it very good—and of interest to children, the books do not, in the opinion of this reviewer, constitute a well-rounded program. Probably the editor had no such design.

The material is not organized by units, nor is there any discernible principle of arrangement or sequence. The arrangement may or may not be desirable, depending on the use made of the book. The editorial treatment, exercises, and "activities" seem neither better nor worse than those in other series—a statement which is not intended as fulsome flattery.

These two books are recommended heartily as supplementary readers, especially for retarded pupils and for pupils not normally interested in traditional readers.

WALTER BARNES

NEW YORK UNIVERSITY

---

[1] The Bookshelf: *The Attack and Other Stories*, pp. 704, $1.08; *Too Many Bears and Other Stories*, pp. 736, $1.08. Compiled and edited by B. R. Buckingham. Boston: Ginn & Co., 1936.

New dictionaries for boys and girls.—The experienced staff of editors who produced *Webster's New International Dictionary*, Second Edition, have prepared a dictionary for children[1] which will probably rank second to none. The publication was written with the single object of making clear the correct meaning and use, and the correct spelling and pronunciation, of a selected vocabulary which comes within the range of reading of boys and girls beginning with the early elementary grades.

The selected vocabulary of 38,500 words was determined on after an exhaustive and scientific study of quantities of printed matter which is actually read by elementary-school children The definitions are phrased clearly and accurately and appear in large, clear type which can be easily read without eyestrain. These definitions have been subjected to tests in many schoolrooms in order to insure their suitability for children's use. Following the trend of simplified dictionaries, the entries are in one alphabetical list. This list includes abbreviations, geographical names, biographical names, and words of foreign origin. The entries are set in large, heavy-face type, ready recognition thus being assured The material is presented in such a manner that there is no cause for confusion. The part of speech is indicated in italics immediately after the word entry and pronunciation. Diacritics, pronunciation, and syllable division are indicated for all words Respelling is used when necessary as an aid to pronunciation, and phrases to illustrate the use or meaning of words are included where they may be helpful Wherever the meaning of a word can be made more clear by a picture, a picture is given More than sixteen hundred pictures appear in the book.

In addition to the small illustrations, there are eight plates of colored pictures. These show birds, butterflies, moths, fishes, flags, fruits, insects, precious and semiprecious stones, and wild flowers. The name of each object shown in these plates is printed directly beneath that object. This arrangement assures quicker identification and is simpler than having the legend at the bottom of the page.

Another distinctive feature of this dictionary is the appearance of the common abbreviations used in the book at the foot of every right-hand page. A key to the pronunciation symbols, with key words, is printed at the bottom of every left-hand page.

All possible devices have been employed to make this book one that children can use independently. The gayly printed end papers showing familiar objects and characters from children's books add to its attractiveness.

The large pages, about six and one-half by nine inches in size, permit the use of wide columns and make the book thin enough to be easily handled The volume is substantially bound in blue cloth with a pleasing cover design and is altogether a most satisfactory reference book for boys and girls at home as well as in school.

---

[1] *Webster's Elementary Dictionary:* A Dictionary for Boys and Girls Chicago. American Book Co., 1935 Pp. xii+740

Another school dictionary[1] for young people which has recently appeared is designed for use in the elementary grades and junior high school. This well-bound and attractive book contains more material than the Webster dictionary. The vocabulary includes more than forty-six thousand terms. The word entries appear in one alphabetical list and in the large, clear type for which the Winston publications for young readers are noted. The arrangement and the presentation of material in the dictionary proper follow the modern trend of school dictionaries. Many verbal and pictorial illustrations are employed to clarify the meanings of words given.

This book differs from other school dictionaries chiefly in its supplementary material. The editors hold that, since the dictionary is a reference book, it is well to increase its scope so that it will be used frequently and thus promote the growth of the dictionary habit. They have therefore included a concise atlas of the world, which contains nineteen colored maps showing the cities, towns, and physical features listed in the vocabulary. Most of the geographic entries in the alphabetical list refer the reader to a specific map for their location. In addition to the maps, the following appendixes are given: "Tables of Weights, Measures, and Standards"; "Foreign Monetary Units"; "Signs and Symbols Used in Writing, Printing, etc."; "Signal Codes"; "The Presidents of the United States"; "States, Territories, and Cities of the United States"; and "Foreign Countries; Foreign Cities." Much of this added material will be interesting to children, but it appears in such fine type that its usefulness is limited. The type is very clear, however. The maps are too small to be of great value to the young readers for whom a dictionary is usually the first reference book. The extra volume added by the atlas and the supplementary material increases the weight and size of the book, and whether these features increase its value greatly can be learned only by experimentation.

Another device intended to be of value is the printed discussion on the back of each of the ten colored plates. In the opinion of the reviewer, this printed page detracts from the usefulness of the book. It gets in one's way and slows up progress when looking for a word; it is merely an innovation. Although the discussions are clear and interesting, they seem out of place in a dictionary. The ten discussions appear on the backs of the following colored plates: "Flags of the Leading Nations of the World," "Familiar Birds of the United States," "Twelve Typical Dogs," "Representative Domestic Animals," "Familiar Food and Game Fishes," "Common Wild Flowers of the United States," "Twenty North American Insects," "Some of the Larger Wild Animals," "Solar Spectrum and Color Charts," and "Some of the Smaller Wild Animals."

EVANGELINE COLBURN

---

[1] *The Winston Simplified Dictionary for Schools.* Edited by Thomas Kite Brown, Jr., and William Dodge Lewis. Philadelphia: John C. Winston Co., 1936. Pp. x+950 and 19 maps. $1.28.

Teaching game techniques.—The problem of where best to teach techniques in the game period has always been a matter of conjecture to teachers of physical education Rodgers has contributed a satisfactory answer to this question through an investigation of three methods in the teaching of game techniques.[1]

The book reporting the investigation describes the experiment in detail. In a public-school program eight physical-education teachers of six hundred fifth- and sixth-grade boys and six classroom teachers of five hundred fifth-grade boys used the three methods. The groups were equated, and the three experimental methods were used in rotation The activities in which the experiment was conducted were soccer, volleyball, and playground baseball. The three following experimental methods of teaching game techniques were applied by both physical-education and classroom teachers: (1) playing the game without practice of any game techniques (no strategy taught and no skills practiced), (2) practicing isolated game techniques for 90 per cent of the class period and playing the game for only 10 per cent of the time, and (3) practicing the game techniques in relation to felt need for improving skill in those techniques while playing the game.

Initial tests of skill and information were used in measuring the pupils' carry-over from past experiences in any team game. The purpose of the procedure was to equate the groups before the experimental methods of teaching were presented. A final test was made at the close of each season in each skill to ascertain the amount of change produced by the experimental method of teaching. Pupil preference of the method resulting in the most fun was determined by a questionnaire when the entire experiment was completed. The teachers also evaluated the three methods of teaching by means of a questionnaire.

The results of the investigation demonstrate that pupils achieve the greatest skill when taught by the third method, in which they practice game techniques in relation to the felt need for improvement while playing the game. Pupils also adjudged this method as the most fun, while teachers evaluated it as the most effective and efficient method in teaching game techniques.

These results appear to reflect the familiar laws of learning and to indicate that the best method of teaching game techniques is equivalent to the best educational procedure involved in teaching. A helpful contribution in physical education would have been made if the study had been extended to determine the capacity to acquire skills in relation to the best method of teaching. It is probable that differences in intelligence and motor capacity would temper the method considerably. Pure opinion would lead one to believe that pupils of the lower levels of intelligence would prefer to spend the time playing the game without indicating a felt need for skill improvement.

---

[1] Elizabeth G Rodgers, *An Experimental Investigation of the Teaching of Team Games* A Study, Applied to the Elementary School Level, of Three Methods of Teaching Teachers College Contributions to Education, No 680. New York: Teachers College, Columbia University, 1936 Pp. vi+66.

The value of the book is clear. Teachers of games should profit by this worthwhile investigation.

IVALCLARE SPROW HOWLAND

BATTLE CREEK COLLEGE
BATTLE CREEK, MICHIGAN

Significance of stunts and tumbling in the field of physical education.—Bonnie and Donnie Cotteral present a comprehensive and scholarly treatment in their book dealing with stunts and tumbling.[1] Moreover, their material is styled in an interesting and readable fashion. The book is systematically divided. In Part I accurate and carefully compiled data concerning the history, teaching procedures, function, and presentation of stunts and tumbling are discussed. The actual materials on stunts and tumbling are painstakingly organized, explained, and presented in Part II.

With the increased interest in, and emphasis on, stunts and tumbling in the recreation and physical-education programs today, the need is apparent for acquainting the leaders in these fields with necessary material, techniques, and procedures involved in the instruction of these activities. The authors deal with this need most competently.

In the initial chapter a most interesting insight is given into the history and the development of tumbling. The field of physical activities is rich in tradition and history, and more research of the kind found in this book should be encouraged. In the final analysis, such a study cannot help giving a keener appreciation for, and understanding of, these activities as they relate to the lives of peoples throughout the ages. In chapter ii of this usable book the place of physical education in the total education program of the individual is clearly indicated, and, with even greater emphasis, the place of stunts and tumbling in the physical-education program is shown. The authors stress the newer ideas concerning physical education rather than providing exercises and training in technical skills. Teaching procedures, with suggestions which should prove helpful to the novice and to the expert, are considered in chapter iii. The practices and procedures advocated are those accepted by progressive and leading educators, and the methods proposed for motivating this work are exceptionally good. The succeeding chapter on "Organization for Stunt and Tumbling Classes" explains the advantages and the disadvantages of class alignments and the placing of equipment. The authors emphasize the necessity for organizing the class into ability groups if the most satisfactory results are to accrue from this type of work. Chapter v discusses problems pertaining to the organization of material in relation to demands made on the individual, the number of performers, and the degree of difficulty of the exercise. An excellent analysis of activities is presented on the basis of the factors of agility, flexibility, balance, and strength. Such pertinent factors as safety, tumbling for girls, and supervision of equipment are capably discussed in the chapter on supervision The physical, the psychological, and the social characteristics of the work and their implications are treated most thoroughly. Certainly every teacher should be familiar with these aspects if a program of this kind is to be conducted intelligently. Chapters vii through x in Part II are devoted to the activities of stunts and tumbling. These are presented in progressive stages, as preliminary exercises, fundamental exercises, and combinations. The activities described and analyzed in fullest detail are illustrated with helpful drawings depicting correct forms Probable difficulties which may be experienced in the execution of the various exercises are brought to the attention of the reader, with practical suggestions for correction Perhaps a word of caution about the use of dives should have been included at this point. Novel stunt and tumbling games, relays, contests, and meets are suggested in the several subsequent chapters These types of activities should alleviate the possible monotony of routine exercises and act as motivating forces in developing this phase of the physical-education program.

---

[1] Bonnie and Donnie Cotteral, *The Teaching of Stunts and Tumbling* New York: A S. Barnes & Co., Inc., 1936. Pp. xvi+338. $3 00.

In short, this book is a veritable storehouse of rich, worth-while ideas and enlightening suggestions which should prove to be pleasantly stimulating to the experienced teacher and amazingly practical and helpful to the teacher with little experience. The charts, sample score cards, complete bibliography, and usable index deserve more than the usual passing comment. To make use of these features will prove a pleasant privilege rather than an irksome task. This volume should, by all means, be included with other recent and outstanding books to supplement the well-rounded physical-education library in which the profession may justly find a great deal of satisfaction.

Nelson S. Walke

Teachers College, Columbia University

CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY AND PRACTICE

Bolton, Frederick Elmer; Cole, Thomas Raymond, and Jessup, John Hunnicut *The Beginning Superintendent* New York Macmillan Co, 1937 Pp. xxxiv+614 $4.00.

Caswell, Hollis L., and Campbell, Doak S *Readings in Curriculum Development.* Chicago. American Book Co, 1937. Pp. xviii+754.

The Development of a Modern Program in English. Ninth Yearbook of the Department of Supervisors and Directors of Instruction. Washington: Department of Supervisors and Directors of Instruction of the National Education Association, 1936. Pp xii+194.

Educational Yearbook of the International Institute of Teachers College, Columbia University, 1936. Edited by I. L Kandel New York· Teachers College, Columbia University, 1936. Pp. xviii+634 $3.70.

The Improvement of Education: Its Interpretation for Democracy. Fifteenth Yearbook of the Department of Superintendence. Washington: Department of Superintendence of the National Education Association, 1937. Pp. 328. $2.00.

LORD, ELIZABETH EVANS, with a Medical Explanation by BRONSON CROTHERS, M.D. *Children Handicapped by Cerebral Palsy:* Psychological Factors in Management. New York: Commonwealth Fund, 1937. Pp. x+106. $1.25.

MELVIN, A. GORDON. *The New Culture:* An Organic Philosophy of Education. New York: Reynal & Hitchcock, 1937. Pp. 296. $3.50.

MIRRIELEES, LUCIA B. *Teaching Composition and Literature:* In Junior and Senior High School. New York: Harcourt, Brace & Co., 1937 (revised and enlarged edition of *Teaching Composition in High School*). Pp. x+576.

SLESINGER, ZALMEN. *Education and the Class Struggle:* A Critical Examination of the Liberal Educator's Program for Social Reconstruction. New York: Covici Friede, 1937. Pp. viii+312. $3.00.

TAYLOR, EARL A. *Controlled Reading:* A Correlation of Diagnostic, Teaching, and Corrective Techniques. Chicago: University of Chicago Press, 1937. Pp. xxviii+368. $3.50.

The Teacher and Society. Written in collaboration by William H. Kilpatrick, editor, and Others. First Yearbook of the John Dewey Society. New York: D. Appleton-Century Co., Inc., 1937. Pp. vi+360. $2.50.

TERMAN, LEWIS M., and MERRILL, MAUD A. *Measuring Intelligence:* A Guide to the Administration of the New Revised Stanford-Binet Tests of Intelligence. Boston: Houghton Mifflin Co., 1937. Pp. xii+460. $2.25.

UMSTATTD, J. G. *Secondary School Teaching.* Boston: Ginn & Co., 1937. Pp. x+460. $3.00.

The Unique Function of Education in American Democracy. Washington: Educational Policies Commission of the National Education Association and the Department of Superintendence, 1937. Pp. 130. $0.50.

BOOKS PRIMARILY FOR ELEMENTARY-SCHOOL TEACHERS AND PUPILS

The Barrows-Parker Geography Series. *Journeys in Distant Lands,* pp. viii+166, $0.96; *United States and Canada,* pp. viii+296, $1.44, by Harlan H. Barrows and Edith Putnam Parker. *Europe and Asia,* pp. viii+280, $1.44, by Harlan H. Barrows, Edith Putnam Parker, and Margaret Terrell Parker. *A Teacher's Guide to "Journeys in Distant Lands,"* pp. iv+44, $0.24. Newark, New Jersey: Silver Burdett Co., 1936 and 1937 (revised).

BARROWS, SARAH T., and HALL, KATHARINE H. *Games and Jingles for Speech Development:* With Suggestions for Teachers. Boston: Expression Co., 1936. Pp. 74. $0.75.

BUCK, FRANK. *On Jungle Trails.* Yonkers-on-Hudson, New York: World Book Co., 1936. Pp. viii+280. $0.96.

Canby, Henry Seidel; Opdycke, John Baker; and Gillum, Margaret *High School English:* Junior Book III. New York: Macmillan Co., 1937. Pp. xii+494. $1.12.

Clapp, Frank L., assisted by Harriet Sleeper, Joy Mahachek, and Lillian Lamb Ralya. *The Master Key Arithmetic:* Grade III, pp. xii+242, $0.64; Grade IV, pp. x+260, $0.64; Grade V, pp. viii+246, $0.68, Grade VI, pp. viii+246, $0.68; Grade VII, pp. viii+278, $0.68; Grade VIII, pp. viii+278, $0.68. Boston: Houghton Mifflin Co., 1937.

Cotrel, Edna, and Halsted, Elizabeth M. *Class Lessons for Improving Speech:* A Textbook Containing Definite Lesson Plans for Use of the Class Teacher of the Elementary Schools. Boston: Expression Co., 1936. Pp x+102. $0.85.

Cox, Philena Morris. *A Guide to the Teaching of Phonics with Special Reference to Pennell and Cusack's "The Children's Own Readers."* Boston: Ginn & Co., 1937. Pp. 48. $0.32.

Fowlkes, John Guy; Jackson, Lora Z.; and Jackson, Arnold S. The Healthy Life Series: *Healthy Growing*, pp. viii+216, $0.64, *Keeping Well*, pp. viii+264, $0.80; *Healthy Living*, pp. viii+288, $0.84. Philadelphia: John C. Winston Co , 1936.

Guiler, Walter Scribner, and Henry, Ralph L. *Junior Remedial English:* A Plan for Individualizing Study in the Junior High School, Grades VII, VIII, and IX. Boston. Ginn & Co., 1937 Pp. viii+176+9 tests and 9 retests. $0.64.

Kefauver, Grayson N., and Hand, Harold C. Kefauver-Hand Guidance Tests and Inventories. Yonkers-on-Hudson, New York: World Book Co , 1937.

McGuire, Edna. *Glimpses into the Long Ago.* New York. Macmillan Co., 1937 Pp. 334. $0.96.

Persky, Louis J *Adventures in Sport.* Boston: Ginn & Co., 1937. Pp viii+328. $1.12.

Rugg, Harold. Man and His Changing Society: Vol. III of the Junior High School Course, *The Conquest of America:* A History of American Civilization: Economic and Social. Boston: Ginn & Co., 1937 (revised). Pp. xii+564. $1 96.

Rugg, Harold. Man and His Changing Society: Vol. VI of the Junior High School Course, *Changing Governments and Changing Cultures:* Democracy versus Dictatorship: The World Struggle. Boston: Ginn & Co., 1937 (revised). Pp. xii+752. $2.00.

Rugg, Harold, and Krueger, Louise. *Peoples and Countries Workbook.* Boston. Ginn & Co., 1937. Pp. 96. $0.24.

Skadsheim, H. *Topical Index to the National Geographic Magazine.* Berrien Springs, Michigan: White Brothers' International Visual Education Service, 1937. Pp. 28. $0.30.

Smith, David Eugene, and Ginsburg, Jekuthiel. *Numbers and Numerals:* A Story Book for Young and Old. Contributions of Mathematics to Civilization, Monograph No. 1. New York: Teachers College, Columbia University, 1937. Pp. viii+52.

Young Americans: How History Looked to Them While It Was in the Making. A Collection of Stories by Cornelia Meigs. Boston: Ginn & Co., 1936. Pp. viii+348. $1.12.

PUBLICATIONS OF THE UNITED STATES OFFICE OF EDUCATION AND OTHER MATERIAL IN PAMPHLET FORM

BUTLER, NICHOLAS MURRAY. *Annual Report for 1936 of the Division of Intercourse and Education.* New York: Carnegie Endowment for International Peace. Pp. 68.

DEWEY, JOSEPH C., and GOLTRY, T. KEITH. *A Guidebook in Observation and Student Teaching.* Minneapolis, Minnesota: Burgess Publishing Co., 1937. Pp. ii+68 (mimeographed).

Gold Star List of American Fiction, 1823–1937: Five Hundred and Sixty-five Titles Classified by Subject, with Notes. Syracuse, New York: Syracuse Public Library, 1937. Pp. 32. $0.25.

HILLHOUSE, A. MILLER, and WELCH, RONALD B. *Tax Limits Appraised.* Publication No. 55. Chicago: Public Administration Service (850 East Fifty-eighth Street), 1937. Pp. 40. $0.50.

Mental Hygiene and Adjustment. Review of Educational Research, Vol. VI, No. 5. Washington: American Educational Research Association of the National Education Association, 1936. Pp. 458–576. $1.00.

A National Organization for Education. Washington: Educational Policies Commission of the National Education Association and Department of Superintendence, 1937. Pp. 48.

Recent issues of the Office of Education:

Bulletin No 18-VI, 1936—*Youth . . . Community Surveys* by Carl A. Jessen and H. Clifton Hutchins. Pp. x+98.

Vocational Education Bulletin No. 185, Trade and Industrial Series No. 53 (1936)—*Aviation in the Public Schools* by Robert W. Hambrook. Pp. vi+78

Vocational Education Bulletin No. 188, Agriculture Series No. 49 (1936)—*Young Men in Farming:* A Study of Young Men To Determine the Qualifications, Opportunities, and Needs for Training in Farming, together with Derived Guidance, Placement, and Training Objectives. Pp. vi+118.

ROBINSON, WILLIAM MCKINLEY. *Practices and Trends in the Preparation of Teachers for Rural Elementary Schools in the State Teachers Colleges and Normal Schools.* Kalamazoo, Michigan: William McKinley Robinson (Western State Teachers College), 1936. Pp. viii+118.

The Use of Background in the Interpretation of Educational Issues. Yearbook XXV of the National Society of College Teachers of Education. Studies in Education. Chicago: University of Chicago Press, 1937. Pp. 256. $1.50.

THE ELEMENTARY SCHOOL JOURNAL

VOLUME XXXVII MAY 1937 NUMBER 9

Educational News and Editorial Comment

THE FUNCTIONAL VALUE OF CURRICULUM CONTENT

There is a widespread, if not universally accepted, view that the instructional content and activities to which children and young persons are introduced should be functional; there is perhaps equal acceptance of the view that children learn through doing, through some type of activity. When, however, different persons come to define what is functional or what is activity, there are likely to be wide differences of opinion. There is, in fact, grave danger that these two terms may be so narrowly defined as altogether to exclude from the curriculum experiences of the highest educational value. In an editorial which appeared in the *University of Michigan School of Education Bulletin*, Professor O. W. Stephenson calls attention forcefully to this danger. We quote the editorial in full.

> Some educators put such a narrow interpretation on the word "function" as it applies to the choice of subject matter to be taught in the schools that they seriously limit the educational experiences of their pupils. Apparently they act on the assumption that no subject matter really functions unless it causes observable changes in the attitudes and behavior of boys and girls that are immediate and socially desirable, or unless they can give this subject matter a practical application in their daily living. It is the belief of the writer that the

word should be given a much more inclusive interpretation, one which comprehends subject matter that does not necessarily cause changes which are immediately observable, that is not applied in the present living of pupils, and that cannot be measured in column inches, referred to horizontal and vertical co-ordinates, or statistically treated in terms of *sigma* and *rho*.

If we accept as valid and achievable the general aims of education, and those of special subjects within the general field, we are bound to put the broadest possible interpretation on the word. If these aims cannot be made to function, why should leaders concern themselves with them? Why all the study, lengthy conferences, and patient labor in phrasing aims if some of them are to be ignored by administrators, supervisors, curriculum-makers, and classroom teachers? Why, for example, have any "Goals of Public Education in Michigan" if four or five of these goals are to be discarded as unattainable as soon as they are read?

These questions force upon us the more fundamental one: What subject matter *does* function in the lives of boys and girls? Our answer is that all subject matter a pupil studies functions in some way or other, either for better or for worse. Thinking is not possible without some sort of change in the person who does the thinking. If the content in connection with which the thinking is done is of the right type, the accompanying change will be in the direction most educators would consider desirable.

The main question to keep in mind when judging the worth of content is whether there are inherent educational values in it. If there are, it cannot be rejected as useless. If by studying it a change for the better comes in a pupil's social attitudes, appreciations, ideals, habits, abilities, and skills, and if by so doing he acquires a body of knowledge which will be of use either in his present or future living, then that subject matter is not to be passed over as worthless.

As far as achieving aims is concerned, some educators seem to think that, to be of value, subject matter must be directly related to or deal with the present, preferably with the immediate, environmental conditions of the pupil. If the content has to do with events of the remote past and they can see no direct connection between those events and present-day affairs, they pass it by in favor of something they think is more functional. They do not seem to realize that *time* is not the essence of the matter when judging the value of content. *When* events took place or conditions existed makes little difference in the emotional reaction a child may experience or the choices he may set up as a result of his study. What really counts is *effect*—whether these reactions and choices result in changes for the better.

According to some, a child does not experience life unless he lives it; he learns only by doing. With this we agree. But let us remember that he is living his life and is doing when in quiet contemplation in his classroom or when solving problems in a secluded retreat in a library quite as much as he is when flexing his biceps in the shop or going on an excursion to a museum, and the former experiences may be of far greater educational value than the latter.

Content can be made to function and aims can be achieved without manual-motor manipulations and muscular movements. An imaginary excursion with Socrates to the Agora and thence to his prison may produce a much more desirable effect than an actual trip to the city incinerator, garbage-disposal plant, or polling place in the seventh precinct. To reflect on the courage of Columbus may result in a change of far greater significance than one resulting from a visit to a Citizens Conservation Camp. Certainly some of our aims in education may be achieved merely through contemplation and study without requiring pupils to move from their seats If they can be, then the subject matter with which the contemplation and study are done may properly be said to function

STATISTICS OF EDUCATION, 1930–34

The statistical data contained in the following paragraphs are taken from "Statistics of State School Systems, 1933–34," which is chapter ii of the *Biennial Survey of Education in the United States: 1932–34* (Office of Education Bulletin No. 2, 1935).

For the four-year period 1930–34 the increase in the number of pupils enrolled in the public schools was 756,178, or 2.9 per cent. During the biennium 1932–34, the rate of increase of enrolments was much lower, the percentage of increase being only 0.6. From 1932 to 1934 there was a decrease in enrolment in nineteen states. Enrolment by grades shows clearly the influence of the declining birth-rate. In 1934 there were 434,067, or 10.5 per cent, fewer children in Grade I than in 1930. Since 1930 there has been a steady decrease in enrolment of each of the first five grades; in 1934 there were approximately a half-million fewer children enrolled in the public elementary schools than in 1930. High-school enrolment continues to increase but at a slower rate; from 1930 to 1932 the percentage of increase was 16.8, while from 1932 to 1934 it was only 10.3.

For the four-year period ending in 1934 the average annual salary of teachers, principals, and supervisors decreased 13.6 per cent for the country as a whole. In several states the average salary was reduced by as much as 30 per cent. In 1934 the average annual salary for this group was $1,227.

The total revenue receipts for the public elementary and secondary schools in 1934 were 13.3 per cent less than in 1930. Within the four-year period 1930–34, 33 states have on an average assumed a greater relative responsibility for financing the schools. In 1930 only 16.9 per cent of the revenue receipts came from states; in 1934 states were the source of 23.4 per cent of such receipts. In 1934 the schools in four states—Delaware, North Carolina, Texas, and West Virginia—were receiving more than half of their revenue from state appropriations or taxes. West Virginia is the only state in which no school revenues are derived from local school districts.

Combining current expenses (including interest) and capital outlay, the annual cost per pupil in average daily attendance in 1934 was $76.22. This was $32.27, or 29.7 per cent, less than in 1930. In 1934, as in previous years, there was a marked variation among the states in cost per pupil in average daily attendance. Based on current expenses, including interest, the cost per pupil in 1934 ranged from $24.50 in Mississippi to $137.69 in New York.

It is evident that some progress has been made in school consolidation. In 1934 there were 4,903 fewer one-room schools than in 1932, and 10,170 fewer than in 1930. In 1934, however, there were still 138,542 one-room schoolhouses; one-room schoolhouses constituted 57 per cent of all schoolhouses. States having more than 6,000 one-room buildings are as follows: Illinois, 9,990; Iowa, 9,215; Missouri, 7,296; New York, 7,251; Kansas, 7,167; Minnesota, 6,765; Wisconsin, 6,579; Pennsylvania, 6,105; and Nebraska, 6,068.

Approximately one-half, 49.2 per cent, of the pupils attending public day schools in this country attend rural schools. In 1934 rural children, on the average, had an opportunity of attending school 160.8 days; the average length of the school term in cities was 181.7 days. Although approximately half of the pupils attended rural schools, current expenses in city schools amounted to $967,577,382 as compared with $547,952,816 in rural schools. The average annual salary of city teachers in 1934 was $1,735, and of rural teachers, $787.

THE NEED OF A NATION-WIDE PROGRAM OF EDUCATION IN CONSERVATION

In the fertility of its soil, in the extent and the variety of its forests, in the quality of its climate, and in the richness of its mineral resources, that portion of the North American continent lying within the boundaries of the United States has been particularly favored by nature, favored more than any area of similar extent on the face of the earth. It was this very prodigality of nature from which, in part, sprang what has been termed the "American dream"—the ideal of equality of opportunity, of economic well-being and security, the vision of a land in which those who tilled the soil would be the owners of it. From the earliest Colonial days in this country, man set about to "conquer nature," to shape it to his will and convenience. Not only was nature to be exploited, but each man was to do it in his own way and to his own ends. Any social restraint on the individual in the use of his land or of its resources would have been regarded as a mistaken principle of economy and an exercise of arbitrary power.

What have been the results? Millions of acres that should have remained in forests have been stripped of their timber and other millions that should have remained in grass have been given over to the plow. Unchecked by forest or grass, flood and dust storm take their toll and force thousands to turn to government for relief. Much has been learned about the science of agriculture, but soil depletion through rain and wind erosion has tended to offset all that science has contributed. For the decade ending in 1929 yield per acre for crops taken as a whole remained practically stationary, and the pasture lands probably declined. Agricultural experts estimate that "probably a third of the surface soil has been removed from one-fourth of the cultivated land of the United States." Truly, nature will not be "conquered." She is, in fact, an exacting mistress, and, though her sanctions may be long delayed, they are as inevitable as the rain and the wind. In a nation which not long ago regarded its public domain as inexhaustible for ages to come and in which a homestead could be had for the taking, tenantry has come to be a national problem. As Aldo Leopold reminds us, "land despoliation has evicted nations and can on occasion do it again" ("The Conservation Ethic," *Journal of Forestry*, XXXI [October, 1933], 635).

Civilization depends on man's discovery of the ways of nature and on his success in organizing his institutions in harmony with those ways. Moreover, it is becoming increasingly clear that, where natural resources are concerned, whether of land or water, of forests or minerals, individual exploitation should give place to a measure of social control.

President Roosevelt has recently submitted to Congress the report of the Great Plains Committee, which bears the title *The Future of the Great Plains.* The area described includes portions of ten states and extends from the Rocky Mountains eastward to the prairies and from northern Texas to the Canadian border. The report makes it clear that the problem of the Great Plains is not merely one of extending temporary relief to a courageous and energetic people who have been overtaken by disaster. The problem is much deeper; it involves the development of an agricultural economy which is adjusted to soil and climatic conditions of the Great Plains. By historic circumstance this area was populated in a period of higher-than-usual rainfall. It was only natural that the settlers should have developed a form of agricultural organization and methods of farming which had proved relatively successful in a more humid climate. In so doing, however, they disturbed the balance of nature; they failed to develop an economy adjusted to natural conditions. To establish such an economy is the problem of the Great Plains. It involves fundamentally different methods of land and water utilization, and it involves, too, the co-operation of national, state, and local governments.

The first part of the report describes the general physical characteristics of the area; the second part deals with the use and misuse of lands and waters; and the third part defines a program of readjustment and development. The committee which prepared the report recognizes fully the part that education must play in any program of conservation. Its comment on this point is of such significance that we feel justified in quoting it at some length.

> *Problem of educational adjustment.*—Over thirty-two million persons are enrolled in public and private elementary and secondary schools, colleges, and universities, and in public night, summer, part-time, and continuation schools of the nation. Because of a certain inertia, the more immediate use of such institutions in a conservation program calls for a redirection of attention in a few phases of their activities. The ultimate goal of such a program is a functional reorganization of these institutions to achieve a more realistic education in the social and economic problems of modern life.
>
> In order to employ educational institutions appropriately in either a narrow or broad conservation program, all the factors in organized education must be adapted to the purpose. It is hoped that the program will recognize the necessity for leavening the organization in every phase. Teacher training and teacher retraining must concern itself with conservation problems of both natural and

human resources. This, however, for many years will be relatively ineffective unless concurrently there are appropriate revisions of curriculums, instructional and pupil work materials, textbooks, and such instruments as are commonly employed by teachers. Satisfactory utilization of the institutions of organized education in this program can only be achieved by broad scale revision of procedures and instruments.

Training of teachers.—Teachers in training must be reached with courses that both give a broader knowledge of pertinent fundamental sciences and a more realistic understanding of the problems of conservation in detail. The teacher-training institutions in the ten Great Plains states should at once, individually or collectively, give further attention to this problem. Their success in designing a program which would prepare teachers who in turn could appropriately teach conservation would no doubt give impetus to such training throughout the nation.

A great proportion of the teachers now in service will not be involved again in any formal intensive training program. It is important, therefore, to plan a teacher retraining program in the Great Plains states. This retraining program might involve the use of county teachers' institutes where they still exist, county teachers' meetings, and other devices of in-service training such as the preparation and distribution of special teaching suggestions and bibliographies of educational materials for use by various age groups. All Smith-Hughes teachers in agriculture and in home economics could make use of such facilities; in fact they constitute a group which should be a strong factor in conservation education.

Especially important is the development of an adequate system of supervision of instruction in the conservation of resources. Adequate supervision will go far in compensating for the deficiencies in training among those teachers who in the immediate future must be utilized for the desired instruction.

Adapting scientific material to teaching purposes.—Some of the organizations which have been mentioned—governmental and non-governmental—have been active in conducting scientific experiments and in gathering scientific data on the various problems involved in the conservation of natural resources Any effective program of conservation education is definitely dependent upon the availability of materials which will have genuine scientific authenticity.

Once such materials are at hand, it is obviously a responsibility of trained educators so to organize them that they may be made to serve in the immediate program of teaching appropriate action in the present crisis, and also in the long-term program of creating proper attitudes. Much of the material now available is of debatable educational value, not so much because of questionable authenticity of the technical content as because it has not been organized or disseminated in a form suitable for educational use. Material should be presented in simple understandable form, and the visual technique employed in every possible manner. The task of educators in co-operation with conservation experts in the immediate program is to reshape the existing materials to serve an educational function by translating, co-ordinating, and directing specialized information so that it will reach existing agencies and institutions in forms more suitable for integration in courses of study, club action programs, open forum discussions, radio broadcasts, motion picture presentations, dramas, classroom discussion units, and other educational approaches to the children and adults of the nation.

The new findings of research should be made available to teachers promptly and currently. Scientists should not wait before publication until they have discovered all the facts bearing on a problem, if facts already discovered are of guiding significance. Conservation education must go on every day, and the latest information should always be available to teachers. . . .

EDUCATION AND COMMUNITY LIFE

In many of our communities education has not had a direct relation to life itself. It too often has been a preparation for something rather than a growth in intellectual power and purposeful living. The school must become the community as it thinks and acts. The school must lead the community to establish its own forward-moving policies and guide those policies through their application. There is envisioned a school which, as regards plant, would comprise the rightly ordered and efficiently operated agricultural, industrial, commercial, social, and residential elements of the community; a plant to which old and young would turn for guidance to experts, libraries, and laboratories. People of all ages would come into its center; those at its center would be constantly carrying their findings into every home and making them operative for more effective living.

Health, wealth, conservation, and utilization of natural resources would be direct concerns of the school. The staff would consist of all those who could contribute in knowledge, skill, or attitude, making for the more effective co-ordination of community and individual living. The membership of this staff of necessity would include personnel from all agencies engaged in the land-use and conservation program of the community, including those who live on and use the land. In fact, through that powerful educational agency, "discussion groups," the members of the community itself would become an essential element of the teaching staff. Finally, conservation would be broadened beyond its relation to natural resources and would embrace the conservation of all human values through the creation of a community which would utilize co-operatively all technical knowledge and would be a normal expansion and modification of our traditional democratic form of government.

INTEGRATION OF EDUCATIONAL EFFORTS

It must be admitted, however, that co-ordination of efforts and programs of these out-of-school agencies has been lacking. The very existence of so many constructive educational influences in many out-of-school agencies which have not yet become a part of the in-school program is indicative that the public education system as it is now organized is too slow in including in its learning program many of the vital problems of life. Inasmuch as the direction of any program of conservation education must consider the co-ordination of efforts to out-of-school agencies with the school programs in order to achieve effective results, it should be the goal of this direction so to relate education to community, county, state, regional, and national planning for the use of natural and human resources, that education becomes a process of learning by purposeful participation in the life of the community, and the life of the community becomes, for all ages, a series of educational experiences.

As has been indicated, many agencies are already engaged in such educational work, and others not now so engaged are available The outstanding educational problem, therefore, is one of integrating the efforts of all such agencies into one co-ordinated intensive program.

DEMOCRACY AND EDUCATION

In a democracy, education is more fundamental even than legislation as a force directing rational progress. It is the basis of wise legislation, promotes general acceptance of legislative and administrative measures, and guides individuals to action along lines consistent with the requirements of the society of which they are members.

In view of the preceding discussion it is therefore an urgent need that those responsible for the direction of educational policy in each state, and those responsible for the direction of federal co-operation in education, should formulate promptly a nation-wide program of education in conservation, flexible in adaptability to regional need and especially intensive in the Great Plains area Emphasis on social and technical phases should be rationally apportioned Utilization of every formal and informal existing and potential educational agency should be provided for in the program. There should be included a subordinate program for training teachers of many specialized fields where and how conservation material may properly and effectively be incorporated into their instruction. Manuals of teaching materials should be prepared and published, and suitable textbooks be made available. To assure continuity of effort in this direction, and especially to assure well co-ordinated efforts, provision should be made for the proper organization of educational facilities and the unified direction of the program.

Reports of conditions, causes, and recommended lines of action for solution of national problems remain but so much dead printed matter if not vitalized by some dynamic force. In a democracy the primary dynamic force is education, for the processes of democracy require common understanding and an inspired impulse among its citizens to action leading to every commonly accepted objective.

THE ANNUAL REPORT OF THE SUPERINTENDENT OF SCHOOLS OF NEW YORK CITY

In his recently published annual report, which bears the title *All the Children*, Superintendent Campbell not only presents to the public an admirable account of his stewardship but provides for superintendents elsewhere an excellent illustration of the new type of school report. In clear, simple language attention is directed to some of the more important social changes which are playing on the school from without, to the controlling purposes of the educational system, and to the methods and procedures employed in moving forward toward a solution of major problems. A striking feature of the report is the extensive use of excellent photographic illustrations.

School administrators and teachers throughout the country will be especially interested in the experiment with the activity program which is being carried out in New York. An activity program has been introduced into sixty-four schools drawn from every type of community. After a period of years results achieved in these schools will be compared with results achieved in comparable schools of the more conventional type. An advisory committee, including members who are committed to the best procedures of the more formal type of instruction, has formulated comprehensive plans for evaluating the experiment. Some early and tentative evaluations have already been attempted. Each experimental school made various studies, including investigations based on standardized achievement tests. Results in reading, vocabulary, and composition are said to have been most gratifying.

ADJUSTING THE REPORT CARD TO MODERN PRACTICE

Norma Gillett, of the Department of Elementary Education, Teachers College, University of Nebraska, has prepared for the Nebraska State Teachers' Assocation a mimeographed bulletin entitled "The Elementary School Report Card." The first part of the bulletin contains a discussion of the function and purpose of the report card. The second part is devoted to an analysis of report cards now used in Nebraska schools. The third and last part presents conclusions and recommendations, among which the following are the most significant.

1. The giving of definite grades, particularly in the form of percentages, is not recommended as the most desirable means of reporting on pupil progress. Grades are not scientifically determined, not objectively defined, and are capable of varying interpretations. They tend to set up in the mind of the child a false conception of the total function of school life. When grades are per-

sistently discouraging to a child, or when they are so satisfactory that they tend to develop too much complacence, they may have harmful psychological effects.

2. Ranking within the class deserves the same criticism as the foregoing item. Ranking is especially harmful for pupils who are not scholastically superior, because it emphasizes high grades at the expense of other equally desirable personal characteristics. There is some feeling that the child should be ranked according to his achievement in relation to his own ability, and not in comparison with the ability of other children

3. A single grade in a field of subject matter which necessarily combines many skills and knowledges is an inadequate report of pupil achievement in that particular subject. Teachers, pupils, and parents should be cognizant of the many factors which enter into success in any school subject or activity, for example, geography.

4. The personal note to parents concerning pupil growth is recommended as the most comprehensive method of report. It implies comment on any or all phases of pupil development, physical, mental, emotional, or social. Its value lies in the individual appraisal of each child and in the close contact and co-operation which it can establish with the home. Although most report cards do contain a printed message to parents, which is friendly in tone, it does not accomplish the purpose of the personal communication between teacher and parent.

5. Reports on character, citizenship, or personality traits should be listed on the card. They should be so stated that they are positive, rather than negative, in implication because of the possible bad effects of "bad marks" being held against the child.

The listing of several character traits for comment is desirable, since this form of report calls attention of teachers, parents, and pupils to the larger scope of the school in developing and appraising the whole child as a social individual.

6 The report card, as the systematic means of communication between the school and the home, can profitably, on the whole, take more cognizance of health factors as they affect both scholastic achievement and social growth.

NEW ADMISSION REQUIREMENTS FOR TEACHERS' COLLEGES IN PENNSYLVANIA

The state teachers' colleges of Pennsylvania have adopted new admission requirements, which emphasize such essential qualities as scholarship, personality, intelligence, stability, and social presence. The following statement describing the new regulations is quoted from *Public Education*, the monthly bulletin of the State Department of Public Instruction.

The regulations for admission to the state teachers' colleges of Pennsylvania require the applicant to appear at the college on days announced during the summer session. Following is a statement of the general principles controlling the new admission regulations. Enrolment is conditional until the applicant has met all the requirements set forth in the following five paragraphs:

1. General *scholarship* as evidenced by graduation from an approved four-year secondary school or institution of equivalent grade as determined by the Credentials Division of the Department of Public Instruction and ranking in the upper half of the class at graduation. Candidates for admission who lack this rank at graduation will be required to take an examination as prescribed in the detailed standards for admission.

2. Integrity and appropriate *personality* as shown by an estimate of secondary-school officials of the candidate's trustworthiness, honesty, truthfulness, initiative, industry, social adaptability, personal appearance, and sympathy.

3. Health, physical vigor, emotional *stability*, absence of physical defects that would interfere with the successful performance of the duties of a teacher and absence of predisposition toward ill health as determined by a medical examination at the college. Specific standards will be set up in the detailed requirements for admission.

4. Normal *intelligence* and satisfactory command of *English* as evidenced by ratings in standard tests. The tests to be used will be prescribed each year by the Board of Trustees and will be uniform for all state teachers' colleges.

5. A personal interview with particular attention to personality, speech habits, *social presence*, expressed interests of the applicant and promise of professional development.

All new applicants must secure and have forwarded to the dean of instruction the following blanks before the personal interviews at the college: (1) application and personnel record to be filled in and forwarded to the college by the applicant; (2) preliminary medical and physical examination form to be filled in and forwarded to the college by the family physician; (3) certificate of high-school graduation to be filled in and forwarded to the college by the secondary-school principal.

All new applicants must arrange with the dean of instruction to fulfil in person at the college the following requirements: (1) a personal conference, (2) a medical examination, (3) a written examination if the applicant is in the lower half of the secondary-school graduating class.

WHO'S WHO IN THIS ISSUE

CHARLES H. JUDD, head of the Department of Education of the University of Chicago. FOSTER E. GROSSNICKLE, professor of mathematics at State Teachers College, Jersey City, New Jersey. WILLIAM C. REAVIS, professor of education at the University of Chicago. WILLIAM S. GRAY, professor of education at the University of Chicago. GERTRUDE HILDRETH, psychologist of Lincoln School of Teachers College, Columbia University. ELISE H. MARTENS, senior specialist in the education of exceptional children at the United States Office of Education.

HOW SHALL THE ENRICHED CURRICULUM BE MADE SYSTEMATIC?[1]

CHARLES H JUDD
University of Chicago

There are certain modern theories of education which seem to be unfavorable to any systematic instruction in the schools. The advocates of these theories use harsh words when referring to the traditional school subjects. Of the conventional school practices, the one which irritates them perhaps more than any other is drill on the multiplication tables. They point out with great emphasis that the sequence of ideas which is set up when the mind couples 6 times 4 with 6 times 5 and 6 times 6 is not a natural sequence and is therefore useless and pernicious. In practical life, they say, the ideas expressed by the formula 6 times 4 appear without any connections whatsoever with the other ideas about 6. Six objects each costing four cents are the facts with which people are concerned in real life. It is concluded, therefore, that in education children should be introduced to 6 times 4 in the presence of situations which are practical—wholly different from those which make up the multiplication tables of 6's and 4's.

Similarly, criticisms are launched against geography of the type which emphasizes political boundaries and products. There is no justification, the critics say, for committing to memory series of names of the products of different countries or boundaries of geographical areas. Such systematic ideas, it is asserted, are barren and unproductive for the ordinary individual and should give place to interesting ideas about rainfall, fertility of the soil, and resulting human prosperity.

Some who are opposed less to system than to the conventional school subjects favor new methods of dealing with intellectual materials because the divisions between the lines of information dealt with in the schools are artificial. For example, they say that it is unfortunate that the narrative of history is studied out of one book and rehearsed in one class while the geographical facts about routes of migration and barriers to human progress are studied out of another book and dealt with in another class. The rational procedure, they say, is to combine all that is now classified as history and geography into a new, stimulating social study.

---

[1] Address delivered on February 23, 1937, at the meeting of the Department of Superintendence of the National Education Association

The reorganization of the curriculum through the combination of two or more subjects appeals to anyone who considers the urgency which modern civilization has created for crowding as much into school programs of instruction as it is possible to include. The discoveries of science, the development of new plans of government, and the growing complexity of industry and commerce have thrown on education a heavy burden. The utmost economy is necessary if the individual is to be equipped with the knowledge which he needs to guide him in the new world of present-day civilization. If subjects of instruction which engage the attention of learners as separate trains of ideas can be interwoven into a single pattern of associated ideas, the resulting economy of mental energy will greatly facilitate individual mastery of that which must be learned.

The movement to reorganize subjects of instruction by combining them is affecting the curriculum of the colleges even more than it is affecting the curriculum of the lower schools. The so-called "general survey," or "orientation," courses are drawing their materials from whole groups of subjects. The general survey course in the social sciences, for example, aims to bring together the findings and general principles of economics, sociology, and political science and sometimes in addition some of the facts ordinarily treated in anthropology, institutional history, and geography.

There is, on the other hand, a disposition in many quarters to resist the breaking-down of the boundaries between subjects of instruction. Scholarship, it is contended by the defenders of the present special subjects, depends on concentration on narrow lines of specialization. If one is really to master geography or economics, one must follow persistently one line of coherent thought, one single type of intellectual associations.

The clash between those who favor the conventional subjects and those who would replace them with less systematic or differently organized plans of instruction has become acute. Many schools have been thrown into a state of chaos. They have given up the old program of studies and do not know how to arrange the new program. It is not easily possible to compose the conflict. An attempt may perhaps begin most promisingly by considering at some length the psychology of the school subjects. When one analyzes the contentions of even the most radical reformers, one finds that these reformers are not abandoning all system in their programs of instruction. They are merely changing from one set of associations to another. I believe that there is no one who would for a moment deny that knowledge is developed in every individual through association of ideas. Indeed, every writer on psychology from Aristotle down to the author of the latest textbook on the subject and every writer on education, at least every writer since Herbart, has pointed out that the mental life of an individual expands through the development of chains of associated or connected ideas. Aristotle formulated certain laws of memory which modern psychologists have called "laws of association." Herbart called them "laws of apperception." These can be readily illustrated from everyday experiences. One meets a stranger and hears his name pronounced. Face and name are associated under the law which Aristotle called the "law of contiguity." The two ideas, having been together in consciousness, are so associated that the appearance of one at a later date will serve to call up the other.

There are other kinds of association, such as association through similarity. One person looks like another. The result is that the mind of an observer relates the two although they have never been together in real life. Association through similarity is in a sense a higher form of mental combination than association through contiguity because in cases of contiguity the association is, so to speak, forced on the mind of the observer by external impressions while in association through similarity there is a kind of inner comparison. The mind is active in setting up a new associative connection. To use the classic illustration, when Newton discovered that the same law of gravitation operates in drawing a falling apple toward the center of the earth and in holding the moon in its orbit, he showed a higher power of association in that particular field than any man had ever shown before. He saw similarity in the two phenomena, but, in so doing, he exhibited the highest type of intellectual penetration. The law of association was indeed exemplified, but experience was extended through inner forces rather than through contiguity of external impressions.

Another general fact about association of ideas, the understanding of which will carry us further in the treatment of our present theme, is that there are some associations which are fruitful for individual thinking and there are others which are not. I suppose that everyone has his bad spots in the multiplication tables. If a personal illustration is permissible, I may confess that 54 and 56 got themselves badly mixed somewhere in my youthful experience. I know perfectly well that one of these bothersome numbers is and should be associated with 7 times 8 and the other with 6 times 9. If I am given a little time, I can multiply the numbers quite correctly. I have an undisturbed memory of the fact that 8 times 8 makes 64. I can now perform a simple process of subtraction and say with assurance which of the two numbers, 54 or 56, attaches to 7 times 8. Similarly, I have a personal device for clearing up 54. The trouble in my case is that somewhere in the past the wires of association were tangled and I am compelled to untangle them whenever I find it desirable to be exact. I can land in the middle of the 50's without hesitation, but I have to be cautious about the side of 55 on which I land.

There are all kinds of cases in which difficulties arise from tangled associations. The *ei* and *ie* combinations in such words as "receive" and "believe" confuse some people. There are also cases in which associations help to avoid difficulties. I may perhaps with propriety contribute another personal experience. I recall vividly the comfort which one of my teachers provided me in one of the early grades when I was having trouble with two words that are pronounced alike, "peace" and "piece." She told me that it is easy to spell "piece" if one associates the first three letters of the word with the easy and readily related word "pie." My teacher was appealing to a fundamental law of her pupil's mind. I am quite certain that, among the numerous innovations which I have introduced into English orthography since the day I set up that particular association, there has never been a single departure from the straight and narrow path with respect to the spelling of "piece."

I am sure that those who are opposed to the conventional school subjects have the same respect for the laws of association that those have who are most devoted to the multiplication tables and conventional geography and history. The disagreement which has arisen is with respect to the kinds of associations of ideas which children should cultivate. Is it better to learn number combinations through experiences of buying and selling and through experiences of measuring or through arithmetical drill?

The contrast of views here under discussion is important because systems of thinking are based on associations. A system of ideas is a more or less compact and interrelated series of associations of a fairly uniform type. Illustrations will be helpful in showing what systems of ideas are like. Some systems of ideas are not commonly recognized as such but are persistent and controlling. They illustrate strikingly the tendency of the mind to combine like experiences. Thus, there are grammatical associations which develop into systems. For example, the past tenses of most verbs are alike in form. All verbs have their primary meaning in the present tense: I walk, you walk; I reach, you reach; I carry, you carry. If any one of the verbs mentioned is thought of as expressing an act in past time, a train of associations is set up which modifies the form of the expressive word by adding the ending *ed*. We cannot easily detach ourselves from the association of *ed* with the verbs mentioned whenever experience reaches backward: I walked, you walked; I reached, you reached; I carried, you carried. There are other dominating grammatical associations. Whenever one is in the attitude of thinking about ownership, one attaches an *s* to the noun.

To be sure, grammar is not absolutely systematic. There are ancient verb forms which have come down from antiquity that do not take on the *ed* association. The grammarians somewhat humorously call them "strong verbs." The strong verbs have a history of their own, which we cannot here study in detail. Suffice it for our purposes to say that a strong verb resists the associative tendency to add *ed* when one is in the attitude of looking backward. If we obey the demands of strong verbs, we "went" instead of "goed," and we "bought" rather than "buyed." Interestingly enough, many a child tends to be systematic and says that he "goed" somewhere or "buyed" something. It then becomes the duty of the older members of society to reinforce the strong verb and to insist, in the interests of historical tradition, that the strong verb be allowed to retain its peculiar identity outside the *ed* system.

While grammar is only partly systematic, there are areas of intellectual effort where departures from a system are strenuously resisted by society. For example, society tolerates no "strong" or irregular examples of counting. It is indeed true that, when little children first use the number names, they take liberties with them, especially with their order. They often count "one, two, three, five, seven, six, four, ten." It is only our tolerant attitude toward infant inexperience that permits us to say in such a case that the child is counting. There is for all persons beyond the earliest years one and only one associative system of number names. The system is absolute, imperious, and dominating. Six comes after five and before seven. Out of its associative order, six is a dangerous hazard.

Modern society has had to set up dominating systems of experience in order to make possible safe community life. For example, in this country the law requires users of the highways to keep to the right. Individuals become so habituated to obeying the law that keeping to the right becomes a part of their inner nervous organization. The system is an external system developed by society, but it becomes a part of the personal experience of every normal individual.

There are systems of experience which must be described as harmful. For example, there are systems of national hatred that have been built up and transmitted by older generations to younger. There are systems of class hatred which need no detailed illustration to be clearly in the minds of all of us. There are social systems which are not harmful but are so wholly artificial that only a careful study of history makes them intelligible. For example, the monetary system is intelligible only when one studies its origin in primitive forms of exchange. We have to recognize the artificial character of this system when we introduce children to it, and now and then in periods of inflation and devaluation we realize the man-made character of the system.

However artificial social systems are, there is one fact about them which should never be overlooked—they grow out of the fundamental nature of human experience. Associations group themselves into systems. The mind of man stores up experiences in associative chains, and these chains become systems. There is no unattached, unassociated idea; in other words, there is no idea which is not a part of some mental system.

The problem which must be solved by education is not that of changing the laws of the mind but rather that of producing, if possible, useful and wholesome systems of ideas. No one can defend a theory of education which does not recognize the natural, indeed inevitable, necessity of some kind of organization of mental life. When the most extreme advocates of new plans of education declare that the conventional school subjects should be discarded, they are not attempting, if they are at all intelligent, to run counter to the laws of association. They are merely arguing for systems of associations which seem to them to be more fruitful and defensible than the systems now taught in the schools.

One may venture, I think, to express the views of the radical opponents of the conventional school subjects as follows: Children in schools will develop naturally and with the least waste of effort if they take the facts of life as they come and build up their ideas into inclusive systems in which experiences and the explanations of these experiences are arranged in the order of practical life rather than in the artificial order dictated by traditional school subjects.

Before accepting this plausible theory of education, we should, I believe, consider certain psychological principles which are no less valid than the laws of association. There is a familiar fact of mental life, which anyone can verify by observing his own experience, described by the psychologists in the statement that the span of an individual's attention is limited. Nature has emphasized the advantages of a limited span of attention by so constructing the human eye that the area of clear vision is sharply circumscribed. As I read this paper, there are coming to my eyes images of the walls of this room and images of people and objects which are only remotely related to the particular task on which I must concentrate, namely, the task of reading the words before me. A large area of my field of vision is quite nebulous and vague, while in the narrow limits of clear vision are certain conspicuous items which are raised to a level of vividness in my consciousness that makes them for the moment the major objects of my thought and behavior. The outlying parts of my field of vision serve a useful purpose. They would cause a shift in my attention if a disturbance should arise which would make reading less essential than it now is for the purposes of my life.

Another illustration of the limited span of attention is seen in the fact that, when one is listening to a discourse or is occupied in reading an exciting story, the noises which continually arise in the environment are neglected. One could multiply illustrations without limit.

If one applies what has been said about the span of attention to school work, one begins to realize why it would be difficult, for example, to study at one and the same time so complex a series of facts as the histories at a given period of all the different countries. While one is thinking about what happened in the United States in the year 1860, one has only a vague peripheral vision, or no vision at all, of what was going on contemporaneously in Turkey or China. One can, it is true, think of the United States and then shift the center of attention to other parts of the world. The successive clear visions can fortunately be kept in memory, and the mind can, if it is very active, combine into a kind of coherent and more or less comprehensive panorama the images which come one by one. There is, however, always a point where the law of diminishing returns begins to assert itself. Too strenuous efforts to secure comprehensiveness result in lack of adequate concentration on particular items and produce a fatal blurring of experiences.

The point which is here being stressed is of great significance for education because broad comprehensiveness is especially difficult for immature minds. The individual thoroughly trained in a certain field can look from point to point and in a sweeping series of glances apprehend successively many items and at the same time note the relations between these items. The beginner in any study must move more slowly and must concentrate longer on each particular item. He holds in mind complex groups of facts with great difficulty. One of the most important functions of education is to develop breadth in systems of experience, but comprehensive systems of ideas are built up by first constructing comparatively simple systems.

The teacher aware of the limitations of attention and of the desirability of cultivating comprehensiveness of thinking finds that one of his most delicate tasks is the maintenance of a proper balance between concentration on items of knowledge and development of breadth of experience. The formula which should be adopted is easy to express in words but difficult to apply in practice. It can be stated somewhat as follows: Begin with young pupils and require, first, concentration. Proceed, then, to develop broader and broader combinations of ideas.

Perhaps the difficulty of applying this formula can be best illustrated by referring to present-day instruction in the natural sciences. The natural-science textbooks are full of facts. These facts may be described as the results of science. When presented in serial order, these facts reveal to the mind which is prepared to recognize relations the continuity of scientific understanding. To the pupil in the high school confronted with fact after fact, the task of sheer concentration on successive items is so exacting that there is no mental energy left for the apprehension of relations. Science-teaching in the schools of this country is often nothing but a hasty review of successive, unrelated facts.

The same charge can be made of the teaching of other subjects. Rhetoric in the high schools is often a series of rules. To the mature individual who really understands the nature of language, rhetoric becomes a statement of fundamental laws all of which fit together into a consistent scheme. Pupils often have difficulty in sympathizing with the enthusiasm of their teachers for their specialties. Enthusiasm is a product of comprehension of relations and comes only when intellectual maturity has been achieved. To one who does not grasp the relationships which make up a given intellectual scheme, there is no ground for enthusiasm—hardly ground for tolerance.

So important is the principle of limitation of demands on attention in determining the procedures which the schools should adopt that we may well take up two examples of such limitation drawn from ordinary life. When one first attempts to drive an automobile, one has an oversupply of experiences. One has hands and feet, one sees and feels the steering wheel and the pedals. One is aware of the pavement, of trees, of telegraph poles, and of cars on the highway.

The wise instructor in automobile-driving tries to simplify the situation by taking his pupil out on some wide, little-traveled road and by calling attention one by one to the adjustments involved in driving.

Another illustration can be found in a novice's efforts to swim. One never realizes how much experience a body of water can afford until one is immersed in it and is bewildered in the effort to move in appropriate co-ordination one's arms and legs, which suddenly seem to be altogether unmanageable.

Education can learn from the experiences described in the preceding paragraphs and from thousands of others that systems of experience must at first be simple if they are to be mastered. It is simpler, when one is thinking about number relations, to build up a system of number ideas all of the same general type than it is to think sequentially of number, tools, boards, and furniture. It is easier, when one is thinking about cities situated on harbors, to continue to study geography than it is to plunge at once into the consideration of wars and dynasties.

The conventional school subjects are comparatively simple systems of like ideas. They have found their places in the scheme of education because they make sequential thinking by novices easy. Conventional subjects are sometimes open to the criticism that they make life seem too simple because they deal at any one time with only one abstract phase of life. Life involves geography, but it also involves arithmetic and language. The school is a place where the complexities of life are taken up one after another rather than in the total patterns in which life presents them.

Do the foregoing statements lead to the conclusion that there should be no combined courses or general survey courses? I believe not. On the contrary, there is in everything that has been said the strongest implication that general survey courses are the best courses which can be offered to young people as soon as their span of attention has been developed to the point where they will not be confused by an assemblage of somewhat diverse ideas. General survey courses emphasize relations. It can safely be prophesied that the high schools will have more of them in the future than they have had in the past. General mathematics will come in this country, as it has in Europe. General language will replace the smattering in single foreign languages which has been one of the chief defects of high-school education. General science will ultimately survive in spite of the opposition of extreme advocates of specialization. All the trends in secondary education are in the direction of general, synthetic teaching. Whether general survey courses can properly be developed in the elementary-school grades is a question which can be answered only on the basis of actual experimentation. Already geography is taking on in the lower grades the form and character of a synthetic study in which the relations of man to his physical environment are treated on an extensive scale. Arithmetic has always been something of a general survey course. This fact has frequently been overlooked. Arithmetic has included insurance, commercial relations, constructive geometry, and other topics. The trouble has been that little or no effort has been made to cultivate in the minds of pupils any knowledge of insurance and the other fields of experience related to number. The complex system of ideas has been present. It has not been intelligently taught.

There is a long road ahead before the schools will reach the goal of a well-organized curriculum including all that pupils ought to learn. At the present time the habit of teachers is to add subjects to the conventional series rather than to undertake the strenuous task of fitting together in new systems of instructional materials the ideas which modern civilization makes it desirable for children to learn. Reorganization is necessary on an extensive scale if economy and comprehensiveness are to characterize school work. There must be insight into the nature of immature minds and recognition of the advantages of concentration on the one hand and of breadth of experience on the other hand.

One of the strongest motives for reorganization of the curriculum is the necessity which everyone recognizes of finding some way of injecting into the school program a large body of new material which will produce in pupils what may be called "social-mindedness." There must be reconstruction of teaching not by adding to the present program of studies a new course in civics but by socializing everything that is taught. In arithmetic, for example, ways must be found of making pupils competent in calculation and at the same time aware of the social importance of precision. In language-teaching, ways must be found of cultivating in pupils correct and forcible expression and at the same time of leading them to appreciate the social heritage which has been handed down to them in a highly developed language.

In the light of what has been said, let us consider seriously the contention of the reformers that the materials of instruction must be drawn from the lives of children and must be related directly to their commonplace experiences. The so-called "activity program" and the project method take up daily experiences in the order in which they arise. The child-centered school begins with the interests and abilities of the children, not with selected and organized systems of ideas. It is difficult to evaluate the theories of the radical reformers because these theories are seldom, if ever, fully adopted and put into actual operation in schools.

When one sees children active under the guidance of a thoroughly competent teacher who understands the subtle art of leading without ostentatious emphasis on the authority of superior intelligence, one is in favor of stimulating activity and of centering the whole program on the progress of the pupils. When, on the other hand, one sees aimless running hither and thither and the petulant impatience of spoiled children who have never been trained in systematic concentration on any system of ideas, one is tempted to suppress activity and to administer with emphasis and, if necessary, with physical accompaniments the requirement of definite adherence to limited ranges of intellectual effort. The antithesis is not, I believe, between activity on the one hand and system on the other or between artificial drill on abstractions and unlimited concession to childish caprice. The antithesis is between wise guidance of immature minds and complacence with accidental chains of unarranged associations.

I take it that the most extreme advocates of a new program for the schools in which all the conventional subjects are abandoned agree with the rest of us that in the long run every individual should write a legible hand and should be able to count and to read. I suppose that all agree that everyone should use the English language with force and clearness. The agreements in these cases are with respect to ends The only disagreements are with respect to methods of reaching the ends recognized as desirable.

As I study psychology, I am impressed with the fact that the human mind is endowed with one virtue which makes it independent of the accidents of ordinary experience. The mind is capable of orderly arrangement of the images that are brought into it by the senses. When the mind deals, for example, with the multitudinous facts of space, it penetrates beyond the variations in size and materials and arranges forms under such orderly categories as triangles and rectangles. When it deals with the animal kingdom, it is not limited to the kind of activity which Adam is reported to have performed when he gave each animal a name. The scientist has developed through long study the insight which leads him to classify animals as vertebrates or invertebrates. When he has arrived at a scheme of classification and has pursued his studies further, the varieties of animal life all fall for man's thinking into an orderly procession. This rearrangement of the animal world could never have been achieved if the mind had not detached itself from practical experiences and concentrated on like systems of ideas.

The kind of arranging of the world which is illustrated in the examples cited is not the result of the thinking of one individual. Long generations of men have tried one method and another of arranging experiences. Some of the early methods were satisfactory within limits but broke down when experiences expanded. Today we are able to employ certain schemes of classification which have been refined by the long, co-operative labor of many generations. These schemes of classification are the conventional subjects taught in the schools. They would hardly be reached even in their rudiments by the individual if he were left to his own unaided devices. They are mature schemes which have proved useful by serving many generations in their efforts to comprehend experiences that on first contact seem to be hopelessly chaotic.

I take it that no one wants to throw away the advantages of co-operative thinking. I cannot help concluding that in their sentimental enthusiasm for the personalities of little children many theorists have been less impressed than they should be by the value of the accumulated intellectual capital of the race. I do not suppose that the most articulate advocate of the activity program will ever go so far as to insist that each child build himself the house in which he is to live. A house built by one's elders is material capital which is handed down and is gladly and properly accepted by the individual. I do not suppose that bridges are to be torn down so that each generation may come to appreciate the difficulties of fording streams. Bridges are forms of material social capital. Children will for better or for worse use money and will submit themselves to the control of government. Why, if all these dependencies of children on the race are valid, should one deny children the right and even the duty to adopt the orderly mental arrangements that the race has given to the experiences of life? Arithmetic is orderly. Buying and selling, measuring, and dividing one's possessions are orderly only when they fit into a scheme of thinking which at first seems artificial.

One must, of course, be on one's guard against the danger which I suppose is the real cause of the phobia from which certain modern critics of school subjects are suffering. One must not become so absorbed in abstract, orderly schemes of thinking that one fails to use them in real living. Zoölogy was not developed for its own sake; nor was arithmetic or the English language. The formula of education that issues from the view which this paper is defending is that children should be helped to arrange and organize their experiences as early and as economically as possible. Children's life-experiences are indeed the materials on which their minds operate, but there is no justification for the assumption that experiences are the sources of the most useful schemes of classification and treatment of experience. Instead of putting children's experiences and activities at the center of the school program, the educational formula which I am advocating treats children's experiences as raw materials to be arranged in systematic order, the means of the arrangement to be derived from the intellectual capital of the race.

I see no reason why many different theories of education cannot be reconciled on the platform which this paper has attempted to erect. Let the extreme advocate of the activity program experiment. The only demand that we shall make on him is that he show definitely and clearly that his pupils are capable in the end of systematic, orderly thinking. The demand imposed on the advocate of the conventional subjects is the converse: His pupils must be able to utilize in the intelligent management of their practical lives the systems of thinking which they acquired in the schools.

To one who is not an adherent of the extreme theory that the school should be child-centered or of the extreme theory that school work should be primarily drill on abstract sets of ideas, it seems as though a rational program of studies could be easily developed by a group of educators who are willing to stop discussing their antagonisms and devote themselves to the reconstruction of the curriculum on the basis of a study of psychology and of the intellectual heritage handed down by the race.

AN EXPERIMENT WITH TWO METHODS OF ESTIMATION OF THE QUOTIENT

FOSTER E. GROSSNICKLE
State Teachers College, Jersey City, New Jersey

It is well known that there are many ways to estimate the quotient in long division when the divisor is a two-figure number. In a former article[1] the writer showed that ten methods for estimating the quotient are used in textbooks in arithmetic and that many individual methods for finding the quotient figure are also used by adults. In the study cited it was found that the "apparent method" is the method most widely used by students in teacher-training schools, although the number of teachers of mathematics in the schools sampled who preferred the apparent method was much less than the number who preferred the increase-by-one method. In the apparent method the tens' figure of a two-figure divisor remains unchanged in estimation of the quotient figure regardless of the value of the units' figure. In the increase-by-one method the tens' figure of the divisor is not changed when the units' figure is 5 or less, but, when the units' figure is 6 or more, the tens' figure is increased by one.

Although many methods are employed for finding the quotient figure, no published experimental evidence is available to justify one method in preference to another.

In order to determine whether there is any advantage in using the apparent method rather than the increase-by-one method or vice versa, the writer during the year 1934–35 conducted an experiment in two school centers near Jersey City. These two school centers offer about the same type of educational program, as measured by the ratio of expenditures to the average daily attendance for the year considered, namely, $95 and $101, respectively. As these two municipalities have about the same populations, it was convenient to use about the same number of subjects for each of two groups of fourth-grade pupils. In one group 216 pupils were available for experimental purposes; in the other group, 233 pupils. The pupils in each group were taught by seven teachers. No attempt was made to equate the teachers because of the minor part that the teacher was to play in the experiment.

---

[1] Foster E. Grossnickle, "Methods of Estimating the Quotient in Long Division Used by Teacher-training Students," *Elementary School Journal*, XXXV (February, 1935), 448–53.

The courses of study in these two school centers provide that division with a one-figure divisor be taught in the first half of Grade IV, and division with a two-figure divisor in the second half of the grade. In order to make sure that each group would attain about the same accomplishment in division with a one-figure divisor, the writer supervised the teaching of the subject, beginning the first week in October. At the beginning of each week every pupil in this study was supplied with all practice exercises for the week. The class teacher distributed the practice exercises, and both pupils and teacher then read the instructions. At the end of the week the exercises were collected and scored under the writer's supervision.

EQUATING THE TWO GROUPS

In the school center in which the ratio of expenditures to the average daily attendance was $95, the apparent method was taught; in the other school, the increase-by-one method. The pupils used in this investigation were equated according to intelligence quotient and ability with the one hundred basic facts in subtraction, with the ninety basic facts in multiplication,[1] with the ninety even facts in division, and with the use of a one-figure divisor in long division. In each case a pupil's score in one group was paired with a corresponding score in the other group. When an intelligence quotient in one group was matched with a corresponding quotient in the other, the exact value could not always be obtained, but the ratings were close. The intelligence quotient was found by the use of the National Intelligence Test, Scale A. The mean scores of the groups on the matching criteria used are shown in Table I.

---

[1] There are some textbooks in arithmetic which refer to one hundred basic facts in multiplication. The reason for selecting ninety is shown in a former article. Foster E. Grossnickle, "Still More Ado about Zero," *Elementary School Journal*, XXXIII (January, 1933), 358–64.

PROCEDURES OF THE EXPERIMENT

The work with a two-figure divisor began on February 5, 1935, and was continued until June 4, 1935, a total of seventy-six teaching days. As in the case with one-figure divisors, all the practice exercises were supplied by the writer. The practice material, with suitable instructions, was delivered to each teacher at the beginning of the school week. At the end of the week these papers were collected and scored under the writer's direction and were then returned to the pupils, together with new practice material for the week following. Every week the correction by the pupils of the scored errors and the accomplishment of the new work required about three or four periods of thirty-eight minutes each. The remaining period or periods were used by the teacher for any phase of number work not related to division and its concomitant processes. However, no drill in subtraction, multiplication, or division was given except as directed on the practice exercises or for correction of these exercises. When a scored sheet had been given to a pupil and it showed no errors, the paper was collected by the teacher and was returned to the writer's files. If errors were disclosed on the practice sheet, these errors were corrected by the pupil before the paper was collected. Every pupil checked each example by multiplying quotient and divisor and adding the remainder to that product. There was no attempt to motivate the work except to mark a word of encouragement on the corrected paper which was returned to the pupil.

TABLE I

MEAN SCORES ON MATCHING CRITERIA OF EQUATED GROUPS TAUGHT TO USE APPARENT METHOD AND INCREASE-BY-ONE METHOD OF ESTIMATING LONG-DIVISION QUOTIENT

Criterion	*Number of Pairs*	*Mean of Group Using Apparent Method*	*Mean of Group Using Increase-by-One Method*
Intelligence quotient	140	105.12±.755	106.40±.648
Ability with 100 subtraction facts	159	99.50±.090	99.50±.090
Ability with 90 multiplication facts	130	88.63±.127	88.63±.127
Ability with 90 even division facts	133	89.38±.114	89.38±.114
Ability in long division with one-figure divisor	142	3.16±.202*	3.16±.202*

* Mean number of errors on the test.

The practice exercises were made to provide adequate drill when the quotient figure is 5 or more. From an examination of textbooks in arithmetic Stephenson found that the bulk of practice is for a quotient figure smaller than 5.[1] He recommended that at least 50 per cent of the practice should be for quotient figures of 5 or more. In the present study every two-figure divisor except the division demons (13–18) was used, and every figure appeared in the quotient. There were 450 estimations in which the quotient figure was 5 or more, and in 474 estimations the quotient figure was less than 5

Four tests were given to each of the two groups: (1) The first test was administered at the beginning of the experiment before any practice had been given with a two-figure divisor. This test consisted of easy estimations in which the quotient was self-evident, as in the example $24\overline{)264}$, or in which the estimated quotient was the true quotient. (2) The second test was given at the end of thirty-five days of teaching. In this test the estimated quotient was the true quotient. All zero types in the quotient were included. (3) The third test was given after eighteen days more of teaching and practice. This test consisted of examples in which the true quotient was the estimated figure or one less than the estimated figure. (4) The fourth and final test was given after twenty-three days more of teaching and practice. Difficulties of estimation of all types were included in this test. The time for the tests was determined by the results from the practice exercises. When the majority of the pupils turned in perfect papers on a certain type of estimation, the test on that phase of estimation was given.

Both groups were given the same practice exercises until after the third test, or at the end of fifty-three days of teaching. The work consisted in finding the quotient when the true quotient is the estimated quotient or one less than the estimated figure. In the latter case no examples were given in which this correction could be avoided if the increase-by-one method were used. Thus, an example of the type $47\overline{)172}$ would not have been included because the true quotient is the estimated figure when the increase-by-one method is used. If the apparent method is used, the true quotient is one less than the estimated figure. However, in the example $34\overline{)226}$ the true quotient is one less than the estimate by either method of estimation. For the remaining twenty-three days of teaching and practice the group using the apparent method was given practice in making the quotient one, two, or three less than estimated. The other group was shown how to correct the quotient figure by making the estimated figure one or two less in some cases and one or two more in other cases.

---

[1] Walter D Stephenson, "An Objective Method of Analyzing Long-Division Examples," p 33. Unpublished Master's thesis, University of Iowa, 1934

The final test is given below. This test was divided into two parts. Part I was given on June 4 and Part II on the following day. No time limit was imposed on the test nor on any of the practice exercises. This test contains all the difficulties of estimation which the writer considers possible when the divisor is a two-figure number, except in the case of the division demons (13–18).

PART I

a. 23)575 *b.* 35)14725 *c.* 47)2868
d. 59)3845 *e.* 94)6476 *f.* 77)7086
g. 24)1824 *h.* 56)5040

PART II

a. 28)1832 *b.* 54)3128 *c.* 26)2376
d. 36)1476 *e.* 46)2439 *f.* 27)21762

RESULTS OF THE TESTS

Two scores were determined for each of the four tests used in this investigation. One score is known as the "correct score" and the other as the "estimation score." The correct score is the number of correct figures in the quotient. Thus, if the quotient given to the example 24)563 is 23, with 11 remaining, the correct score is 3 since both quotient figures and the remainder are correct. The estimation score represents the number of correct estimations in an example. In the previous example the estimation score is 2. The final remainder is not considered in the estimation score. In the example on the left the estimation score is 3, but the correct score is 1. Giving both the correct score and the estimation score makes it possible to de-

```
   205, 4 (remainder)
24)5924
   48
   124
   120
     4
```

termine whether there is a tendency to make more errors in computation by one method than by the other.

The mean scores for the two groups are given in Table II. Each score on the test was assigned its absolute or quantitative value. Thus, a score of 21 means everything from 21.00 to 21.99.

Two outstanding facts may be observed in Table II· first, the high degree of accuracy attained by both groups in the use of a two-figure divisor in long division; second, the small differences between the mean scores of the two groups. To determine whether the difference between two corresponding mean scores for each group is a chance or a significant difference, the difference must be compared with its probable error. When this difference is at least four times its probable error, there is more than a chance difference between the relative mean accomplishment of the two groups. The ratio of the difference to the probable error of the difference, shown in the last column of Table II, indicates that there was only one significant difference between the mean scores of the two groups, namely, the difference for correct scores on Test 4 when the two groups were equated on the basis of intelligence quotient. The small ratios given in the last column indicate that there is no appreciable difference in the relative merits of the two methods of estimating the quotient. Although the mean differences between the two groups in Test 4 always favored the apparent method, in all except the one case cited the differences were too small to represent anything but chance differences.

Further, none of the data showed significant differences between the two groups on both correct scores and estimation scores. Thus, the conclusion is warranted that one method is about as effective as the other in producing both a correct score and an estimation score.

Since there was no consistent significant difference between the mean scores for the two groups, consider the mean scores for Test 1. As the pupils took Test 1 before receiving any instruction on a two-figure divisor, these means show that there was a decided transfer from ability to use a one-figure divisor to the use of a two-figure divisor for easy estimations.

The average accomplishment with a two-figure divisor was satisfactory, as was also the ability with a one-figure divisor. Table I

TABLE II

COMPARISON OF ACHIEVEMENT ON FOUR DIVISION TESTS OF EQUATED GROUPS TAUGHT TO USE APPARENT METHOD AND INCREASE-BY-ONE METHOD OF ESTIMATING LONG-DIVISION QUOTIENT

TEST*	MEAN OF GROUP USING APPARENT METHOD	MEAN OF GROUP USING INCREASE-BY-ONE METHOD	DIFFERENCE IN FAVOR OF APPARENT METHOD	$\frac{\text{Diff}}{\text{P E}_{\text{diff.}}}$
	Group Equated by Intelligence Quotient			
Test 1:				
Correct score (22)	9.65 ± .480	8.58 ± .390	1.07 ± .617	1.73
Estimation score (17)	8.23 ± .378	7.41 ± .318	.82 ± .494	1.66
Test 2:				
Correct score (32)	31.20 ± .174	31.05 ± .190	.15 ± .258	.58
Estimation score (24)	23.50 ± .126	23.50 ± .132	.00 ± .182	.00
Test 3:				
Correct score (30)	29.53 ± .070	29.36 ± .123	.17 ± .142	1.20
Estimation score (21)	21.03 ± .067	20.85 ± .069	.18 ± .096	1.88
Test 4:				
Correct score (39)	38.88 ± .076	37.70 ± .240	1.18 ± .252	4.68†
Estimation score (30)	29.97 ± .072	29.40 ± .165	0.57 ± .180	3.17
	Group Equated by Ability with Subtraction Facts			
Test 1:				
Correct score (22)	9.42 ± .477	8.44 ± .355	0.98 ± .595	1.65
Estimation score (17)	8.06 ± .366	6.98 ± .233	1.08 ± .434	2.49
Test 2:				
Correct score (32)	30.90 ± .167	29.89 ± .198	1.01 ± .259	3.90
Estimation score (24)	23.54 ± .114	23.57 ± .134	− .03 ± .176	.17
Test 3:				
Correct score (30)	29.78 ± .118	29.10 ± .145	.68 ± .187	3.64
Estimation score (21)	21.05 ± .067	20.84 ± .069	.21 ± .096	2.19
Test 4:				
Correct score (39)	38.60 ± .218	38.32 ± .174	.28 ± .279	1.00
Estimation score (30)	29.85 ± .145	29.56 ± .124	0.29 ± .191	1.52
	Group Equated by Ability with Multiplication Facts			
Test 1.				
Correct score (22)	9.09 ± .515	8.20 ± .400	0.89 ± .652	1.37
Estimation score (17)	8.04 ± .390	7.15 ± .330	.89 ± .511	1.74
Test 2:				
Correct score (32)	30.30 ± .243	30.85 ± .241	− .55 ± .342	1.61
Estimation score (24)	23.23 ± .157	23.36 ± .182	− .13 ± .240	.54
Test 3:				
Correct score (30)	29.21 ± .224	29.24 ± .149	− .03 ± .269	.11
Estimation score (21)	20.64 ± .155	20.87 ± .067	− .23 ± .169	1.36
Test 4:				
Correct score (39)	37.98 ± .246	37.60 ± .260	.38 ± .358	1.06
Estimation score (30)	29.36 ± .225	29.00 ± .206	0.36 ± .305	1.18

* The figures in parentheses in this column represent the highest possible scores

† This difference is statistically significant.

TABLE II—*Continued*

Test	Mean of Group Using Apparent Method	Mean of Group Using Increase-by-One Method	Difference in Favor of Apparent Method	Diff. / P E diff
	Group Equated by Ability with Even Division Facts			
Test 1·				
Correct score (22).	8 64± .531	8 09±.430	0 55± 683	0 81
Estimation score (17).	6 68± 383	6 71± 343	− 03± 514	06
Test 2:				
Correct score (32). .	30.60± 211	30 88±.212	− 28± 299	.94
Estimation score (24)	23.30± 134	23 55±.143	− 25± 196	1 28
Test 3·				
Correct score (30). . .	29 42± 173	29.25±.136	17± 220	.77
Estimation score (21) .	20 88± 114	20 86± 067	02± 132	15
Test 4:				
Correct score (39). . . .	38 67± 205	38.44± 164	.23±.263	87
Estimation score (30).	29 75± 137	29.33± 179	0 42±.225	1 87
	Group Equated by Ability in Long Division with One-Figure Divisor			
Test 1:				
Correct score (22)	8 66± 306	8 38±.405	0 28±.508	0 55
Estimation score (17) .	7.24± 367	7 15±.275	09± 459	20
Test 2				
Correct score (32) . .	30.29± 222	31.25±.140	− 96± 262	3 66
Estimation score (24).	23 04±.163	23 64±.092	− 60± 187	3 21
Test 3:				
Correct score (30) . .	29 44± 164	29 14±.142	30± 217	1 38
Estimation score (21) .	20 70± 125	20 72±.121	− 02± 174	11
Test 4·				
Correct score (39). .	38 44± 230	38 01± 241	43± 333	1 29
Estimation score (30).	29 77±.174	29 30± 154	0 47±.232	2 03

shows that the mean number of errors on the division test for a one-figure divisor was 3.16±.202. This number of errors is lower than the number for any of the groups of students in Grades V-XV, inclusive, who had taken the same test in a previous investigation.[1]

The correlation was found between the correct score for Test 4 in this investigation and each of the five traits on which the two groups were equated. The highest correlation was between ability with a one-figure divisor and ability with a two-figure divisor. Comparing a number of traits affecting success in long division, Beal[1] also found the highest correlation between ability with a one-figure divisor and ability with a two-figure divisor. These correlations furnish further proof of the advantage of using a one-figure divisor in the long form.

---

[1] Foster E Grossnickle, "An Experiment with a One-Figure Divisor in Short and Long Division," *Elementary School Journal*, XXXIV (March, 1934), 504

One more result should be noted. The results of this investigation do not substantiate the findings, or rather the recommendations, with regard to the age level at which division can be taught made by the Committee of Seven of the Northern Illinois Conference on Supervision:

> At the mental level of nine years ten months, which is approximately the fourth-grade level, considerably less than half the children have a chance of making a retention-test score of 80 per cent in long division, even if they have made a score in simple multiplication of 100 per cent, one in short division of 88 to 100 per cent, and one in subtraction of 100 per cent. Long division apparently should not be taught until a mental level of twelve years seven months, or well along into the sixth grade for children who are average or above in mental age.[2]

The average mental age of the pupils used in this investigation was nine years and seven months. Since this mental age was determined in October, it may be assumed that the average mental age in June would be about eight months more, or a total of ten years and three months. The average correct score on Test 4 on this investigation was 38.21 out of a possible score of 39 (39.0–39.9) – a retention score of about 96 per cent. Furthermore, this test included all the difficulties apparent in long division (except for the divisors 13–18, inclusive) according to the writer's judgment of these difficulties. Since the results do not agree with the findings of the Committee of Seven, the writer ventures to offer a plausible reason for the great variation in the two investigations. The sequence of difficulties in the investigations by the Committee of Seven may not have received the close scrutiny that was followed in this study. Another factor may have been the vigilant watch for errors in this study. Every pupil was required to solve all examples correctly before he could proceed to the next practice exercise. The results of this investigation show conclusively that pupils who have the mental age of the average fourth-grade pupil can be taught long division with a two-figure divisor.

---

[1] Ross H. Beal, "An Individual Instruction Unit in Long Division," p. 69. Unpublished Doctor's thesis, University of Iowa, 1932.

[2] Carleton Washburne, "Mental Age and the Arithmetic Curriculum: A Summary of the Committee of Seven Grade Placement Investigations to Date," *Journal of Educational Research*, XXIII (March, 1931), 226.

SUMMARY AND CONCLUSION

This investigation was made to determine the relative merits of the apparent and the increase-by-one methods of estimating the quotient for a two-figure divisor. In two different school centers, one teaching each method of estimation, two groups were equated on the basis of intelligence quotient, ability with the one hundred subtraction facts, ability with ninety multiplication facts, ability with ninety even division facts, and ability with the use of a one-figure divisor in long-division form. After seventy-six teaching days in the two centers the following results were obtained: (1) There was no significant difference between the mean scores of the two groups taught by the two methods of estimation. Although in the final test the differences were in favor of the apparent method, these differences in most cases were too small to be significant. (2) There was no significant difference in the mean number of computational errors made when using the two methods of estimation. (3) Of the factors considered, that which correlated the highest with ability to use a two-figure divisor was ability with a one-figure divisor in the long form. (4) There is no discernible reason why division with a two-figure divisor cannot be learned in Grade IV when the pupil has attained a mental-age level of about nine years and seven months. This conclusion is contradictory to the findings of the Committee of Seven.

The results of this investigation do not warrant the recommendation that the apparent method of estimation of the quotient is superior to the increase-by-one method or vice versa. The writer is not suggesting that any particular method should be used to make long division automatic. It is probable that further experimentation with the effectiveness of various methods of estimation will show results about as inconclusive as are those derived from many reported experiments dealing with different methods of subtraction. Probably, therefore, the most effective research dealing with division by a two-figure divisor consists in determining (1) the correct sequence of difficulties of the process and (2) the right kinds of practice exercises essential for overcoming these difficulties in the most effective manner.

CULTIVATION OF LEISURE ACTIVITIES

WILLIAM C. REAVIS
University of Chicago

Public education in America has, throughout its entire history, emphasized training for work almost to the exclusion of training for leisure. This emphasis in the early Colonial schools was not surprising, for the life of the pioneer was hard and there was little leisure either among the young or the old. The Colonial elementary school taught the bare rudiments of an education—reading and the elements of religion; the secondary school sought to give a few boys a knowledge of Latin grammar which would admit them to college; and the college undertook the training of a still more select group of boys for services in church and state. At each of the three educational levels the youth received rigorous training in memorizing processes. There was little motivation other than reproof, punishment, and the awe of failure.

These early schools reflected the life of hardship and sacrifice of the colonists. The teachers sought to inculcate in the scholars the same qualities of character that were possessed by the pioneer settlers. The work of the settlers of a Colonial community consisted mostly in drudgery. There was little thought of leisure and little time given to it other than worship on Sunday in the church. Even the worship took on the aspects of the settlers' hard lives. Since many of these pioneers became martyrs to Colonial hardships, it was natural that their sacrifices should be idealized by those who survived and that these ideals should be imparted to the young through the homes, the churches, and the schools. Industry and hard work were exalted as ideals, while idleness and play were regarded as devices of Satan. The Colonial schools thus sought to rival in severity and endurance the hard lives of the adult members of the community who made the schools possible.

In the course of time the pioneer began to triumph over hard conditions in his struggle for existence. He gradually acquired a reserve of property and resources, which protected him against emergencies and enabled him to find some relief from the constant drudgery imposed by primitive conditions. He began to aspire to something better for his children. As he looked backward on his own hard life and contrasted the drudgery with the enjoyment experienced from his accumulated reserve, he wished to spare his children some of the hardships which he had endured. The wish became the parent of a thought which has gradually developed into a powerful principle in American life. Now, every person, whether a parent or not, desires to spare the young during the period of childhood from the bitter experiences imposed by the responsibilities of adult life.

Private secondary schools were first established to cater to the desire of the American citizen that his children be trained for the worthy use of leisure as well as efficient work. As a result the country from 1800 to 1860 experienced a development in private secondary education which has never been equaled in any country in the world. Private secondary schools, however, were more or less exclusive; they could not be enjoyed by all the children of all the people. It was therefore inevitable that the private secondary school should give way eventually to a more democratic institution —an institution that should place opportunity for liberal training within the reach of all.

The American public secondary school has become the concrete expression of the desire of citizens in general for the training of youth in leisure pursuits as well as in work. The idea has been slow in finding its way into public-school practice, but at last it may be said that public schools at all levels recognize to some extent the demand for training in the worthy use of leisure and the importance of such training in a democratic society.

Changes in the economic and the social life of the American people have resulted in a gradual decrease of the hours given to productive labor and a corresponding increase in the time available for leisure. Adults whose training in the worthy use of leisure has been neglected find themselves in an anomalous situation: they have nothing to do and yet possess an abundance of time in which to do it. The condition has tended to create in such persons a state of personal demoralization. This situation has become a national problem as gainful employment has decreased in recent years.

Among the youth still of school age the state of demoralization has not been so great as among adults because of the greater opportunities available through the school for the profitable use of leisure and because of the training received through the school in the worthy use of leisure. In communities, however, where the school has not sensed its responsibility for the cultivation of leisure-time interests and the development in the children of resources for creating leisure occupations for themselves, the demoralization among the children has been even greater than that among the adults.

Some of our most serious national problems involving both youth and adults can be traced to the failure of our institutions to train properly for the use of leisure. The results of our dereliction are apparent, for example, in the reckless use of the automobile as an implement of pleasure without regard for the rules of the road. Partly through high-pressure salesmanship and partly through the desire to secure pleasure from increased leisure time, there have been placed at the disposal of the American people approximately ten million new passenger automobiles and sixteen million used automobiles and trucks in the last five years.[1] During the last year for which statistics are available (1935), 1,180,000 persons were temporarily disabled, 105,000 were permanently disabled, and 37,000 were killed in automobile accidents.[2] The deplorable aspect of this distressing situation is the fact that over three-fourths of the motor-vehicle accidents involve privately owned passenger cars and the further fact that most of the accidents are directly caused by disregard for the rules of the road. Some of the causes of the accidents were: driving too fast, 23 per cent; driving off the road, 11 per cent; violation of right of way, 26 per cent; driving on wrong side of the road, 16 per cent; and failure to signal and improper signaling, 5 per cent.[3] In the light of such facts the duty of society in general, and of the school in particular, is clear. We are compelled to protect ourselves both by law and through instruction from the reckless use of our own leisure-time devices.

---

[1] *The Chicago Daily News Almanac and Year Book for 1937*, p. 436. Chicago, Chicago Daily News, Inc.

[2] *Ibid.*, p. 619.

The World Almanac, 1937, p. 322. New York: New York World-Telegram.

Since American life is so ordered at the present time that more leisure time than ever before and more ways of using it are available for everyone, the task of society is to provide training which will enable individuals to discriminate between worthy and unworthy uses of leisure. This discrimination will not prove satisfactory if the training consists merely in the vicarious experiencing of the possible uses that can or cannot be made of leisure time. Training, to be effective, requires fixing through practice; the pupil's interests must be developed through actual experience and the subjective standards needed both in evaluating the opportunities available for leisure and in creating self-satisfying leisure activities must receive attention both at school and at home.

The schools were fairly well launched on a program of training for leisure activities at the outset of the economic depression. Educators generally recognized the fact that the wide distribution of economic prosperity made imperative increased training in the use of leisure. Extra-curriculum activities were enlarged, libraries were extended, playgrounds were increased, and athletic programs were expanded. Churches even vied with schools in providing these leisure-time experiences for the young. The result has been a great enlargement of the interests of children at all age levels. These interests have been reflected in improved work in the classrooms and in better citizenship in school and community.

On the whole, much progress has been made in training for leisure even during the depression years, in spite of the vigorous demands of certain taxpayer groups for economy in public education. Strange to say, these demands have been aimed particularly against the recreative and leisure-time activities of the school Every economic quack in the country has delivered his tirade against the "fads and frills" in the schools. Each would train pupils solely for work when there is virtually no work for young people under eighteen years of age nor for millions of adults. In such a situation the immediate problem is the proper utilization of leisure by the unemployed, for they are demoralized by enforced idleness. Lacking training for leisure activities, persons deprived of work tend to become mere idlers, without capacity or incentive to utilize the opportunities provided by the social order for profitable enjoyment and personal development. Little imagination is required to foresee the consequences to society if a large portion of the population is thrown into idleness indefinitely without the means of making adjustments to a surplus of leisure time. The remedy of those who would effect economy in education by eliminating training for leisure and concentrating solely on training for work would thus become the primary cause of social demoralization, which in turn would be conducive to inefficiency in work.

Since the objection to the training of the young in the worthy use of leisure time has been shown to be false, I shall proceed with the discussion of the proposition that training in leisure activities is a function of the modern school and that the task of the educator is so to organize the school program and the school environment that the end desired will be realized for the pupil. This plan does not mean, as some will no doubt suppose, that the school will either subordinate or greatly modify the function of training the pupil in the habits of efficient work. The program of the school must naturally be extended and improved if two functions of equal importance are to take the place formerly held by one. If, in addition to the multiplication of function, the problem of executing the program at a lower cost must be solved, it is apparent that the task of the modern educator calls for creative and constructive thought.

An examination of the program of the traditional school reveals much wasted effort and lost motion which can either be eliminated or redirected with good effect. For example, the traditional school, in its emphasis on work, set up an antithetical relation between work and play which resulted in the pupils' conceiving of work and play as opposite kinds of activity—the one to be endured during the hours of the school day, the other to be enjoyed whenever time or conditions permitted. This attitude toward work and play is one of the most deadly delusions of the human mind; it is responsible for the misleading maxim, "Work when you work and play when you play," often quoted to pupils to stimulate their efforts and to emphasize the antithetical nature of work and play.

This fallacy is the source of many of the school's worst errors. It is primarily responsible for the unfavorable attitude of innumerable pupils toward school as well as the unwise methodology of many teachers. If the fallacy is not corrected in the schools of today, our children will continue to be miseducated as in the schools of the past and the training received will prove inadequate for the conditions of modern life.

The school should teach, both by precept and example, that drudgery and play are opposite ways of performing work and that the chief difference between the methods is the attitude of mind of the individual toward his task. Work may be enlivened by the play spirit, and play may be deadened by the drudge spirit. The elimination of drudgery from the modern school makes possible both the accomplishment of a higher type of work and the enjoyment of wholesome play. Thus, the dual function of the school, training for efficient work and training for leisure, can be realized.

In recent years the schools at the elementary, secondary, and college levels have made progress in training for leisure activities through the development of so-called "extra-curriculum" activities. In the older schools these activities were usually outlawed, sometimes tolerated, but seldom encouraged. Today such activities are definitely encouraged and are systematically developed and directed in the better schools. Through activities the spirit of play is fostered and the values of proper training in play are secured. The extra-curriculum activities give a real savor to the school life of the pupil. They break the shackles of artificiality hampering those schools that train pupils solely for work; they provide the broadening and finding opportunities which aid the pupil in self-discovery and enable him to carry on his self-education in a natural and normal manner.

Educators very generally consider that extra-curriculum activities possess values for the pupil, such as the development of initiative, responsibility, and co-operation, training in the worthy use of leisure time, and experience in the active duties of citizenship. It is also the consensus of school principals that participation by the pupil in such activities increases the efficiency of his regular classroom work, that the experience acquired through participation in the activities enriches the background of the individual for the appreciative studies, and that the association of pupil and teachers in the activities develops understanding and creates wholesome school morale. The principals further agree that the pupil, especially at the secondary level, will seek experiences in social activities whether the school provides them or not and that the problem of the school, therefore, becomes one of encouraging and directing activities which will provide a many-sided training for the pupil and will fit him directly for intelligent citizenship.

Since the modern school is concerned with the fullest education of the pupil, it must consider his total experience rather than a mere segment of experience, as was the case prior to the introduction of extra-curriculum activities. In the school of today, then, responsibility must be accepted for evaluating, regulating, and directing the social experiences of the individual both within and without the classroom. School officials and parents will avoid much trouble in their dealings with young people by seeking to discover the secret of the youths' enthusiasm for extra-curriculum activities. Principals of schools should know the values desired for the pupils through participation in the activities and should set up standards for the selection of activities that will insure the values sought.

Well-informed persons no longer question the importance of providing a balanced program of recreational and special-interest activities for young people of school age. Youth must have an outlet for its surplus energy. To provide an outlet under wholesome conditions is a function of modern education. Not to provide an outlet is misdirected education and false economy. Adequate provision by the school for proper recreation through extra-curriculum activities is the best preventive measure known for the social derelictions of young people.

The scope of the program of extra-curriculum activities in modern secondary schools is revealed by a national survey[1] of 224 schools selected because of their accomplishments in the development of leisure-time, nonathletic activities. For example, it was found that these schools carried on competitions with other schools in thirty-two types of activities, such as debating, extemporaneous speaking, orchestral and band music, instrumental and vocal music, commercial contests, and competitions in various school subjects. The activities provided intramural practice in preliminary contests for 30,782 pupils and participation in interschool contests for 10,202 pupils. Tournaments and meets in local and state areas furnished participation in such activities for 6,875 pupils. Altogether, approximately 50 per cent of the pupils enrolled in the 224 schools participated in preliminary or final competition in 3,020 contests, tournaments, and meets of the nonathletic sort.

---

[1] William C. Reavis and George E. Van Dyke, *Nonathletic Extracurriculum Activities*, pp. 129–33. National Survey of Secondary Education Monograph No. 26. United States Office of Education Bulletin No. 17, 1932.

Similar participation is secured in various kinds of playground and athletic activities, which provide wholesome recreation for pupils individually and in groups at the elementary and college levels, as well as in secondary schools.

I do not want to give the impression that all pupils in the schools in the United States are receiving training in activities of the kind described. Unfortunately there are still too many schools of the pioneer type which regard education as bitter medicine to be dispensed by vigilant, awe-inspiring taskmasters. In such schools the pupils are experiencing education as involuntary drudgery and leisure activities as stolen sweets to be secured only through artful practices.

I should like to digress long enough to point out that in such schools most of our lay reformers, who would now restrict public education to the bare rudiments, received their training. Some of them have won success in life through the craftiness which they acquired in evading the drudgery of the school rather than through the habits of work which the school sought to develop. Like the self-made man who is prone to worship his "maker," they now idealize their early training and look on it as the educational panacea for the problems of the modern school.

In contrast with the training of that early school, consider the merits of the modern school, with its curriculum of tested worth; its wealth of library material; and its procedures, of demonstrated success, in developing the orderly use of mental processes in dealing with the problems of contemporary life. The pupil in the modern school is not only better grounded in all the fundamental processes than was the pupil in the rudimentary school of a generation ago, but he is, in addition, prepared through training in the leisure activities to get more out of life and to give more to life. His intellectual interests are enlarged; skills and abilities in specific fields are cultivated; personal poise and self-confidence are developed; social understandings and conventions are acquired; and his capacity to use the worthy products of ordered society is developed. In a word, the modern school seeks to make every pupil an intelligent consumer as well as an efficient producer.

Not all modern schools have adequately solved the problem of training pupils in the worthy use of leisure time. Too many have been satisfied merely to provide schedules of activities and to require the pupils to pursue a certain number of activities without responsible guidance. Such a solution to the problem is unsatisfactory. It does not take into consideration the differences in the interests of pupils at various age levels or the differences with respect to sex, social background, and mental capacity.

The entrance of the school into the training of pupils for leisure activities is a great forward step in social progress and in educational history. Three hundred years of experience in public education should have convinced us that well-rounded training requires the direction and control of the out-of-school experiences of the pupil as well as the experiences of the classroom. The end result desired is seldom secured unless the school is organized as a social laboratory for the guidance of its pupils in practicing the precepts of the classroom both in school and in community.

The extra-curriculum program of the school should constitute the practice field in which the young citizen is privileged to acquire firsthand personal experiences as a functioning member of social groups. There he learns in a vital way the meaning of civic responsibilities and their relation to school life. Participation in activities is the only method of developing in the individual a genuine feeling for the responsibilities of group membership. Through thinking, feeling, and acting with a group as it performs its activities and seeks to realize its purpose, the individual is socialized, that is, made a functioning member of ordered society.

The school of today has a much greater responsibility for its pupils than the school of earlier times. The social order in which the youth must find his place is vastly more complex than ever before. The increase in leisure time and the multiplication of uses that can be made of leisure time further complicate the adjustment of the youth to ordered society. The youth must be trained, not only to select between profitable and unprofitable forms of leisure, but also to determine the limit to which leisure activities may be carried without giving offense to his fellows or endangering their rights.

Obviously, therefore, training for leisure involves a much greater responsibility than merely enlarging the interests of the pupil and providing broadening and finding experiences. The social obligations and restraints of the individual must be integrated with his enlarging tastes and desires for leisure activities. In recent years the task of the school in this respect has increased in difficulty because of the conspicuous failure of other institutions to perform training functions in the use of leisure formerly carried on with considerable success As a result, the school of today is called on to assume almost single-handed the responsibility for the development of appreciation on the part of its pupils for worthy leisure activities and the cultivation of worthy habits in the use of leisure time.

The problem presented to the school in the training of pupils as intelligent users of leisure offers a vigorous challenge to educators to break new ground in organization, administration, and instruction. Large-scale changes in these directions, however, can scarcely be expected to receive strong community support until successful beginnings have been made and public approval has been secured on the basis of the initial efforts. Since success in training for leisure is fundamental to social and economic welfare, the school must face its new responsibility with determination and without unnecessary delay.

"THE TEACHING OF READING: A SECOND REPORT"[1]

WILLIAM S. GRAY
University of Chicago

In the *Report of the National Committee on Reading*, issued in 1925 as the Twenty-fourth Yearbook of the National Society for the Study of Education, the committee recommended that subsequent yearbooks in this field should be published at frequent intervals. This suggestion was based on the conviction that problems relating to instruction in any field should be critically reviewed from time to time and recommendations prepared in harmony with changing needs and the results of classroom experience and scientific study. Accordingly, the Board of Directors of the society appointed an advisory committee in December, 1935, to consider the need for a new yearbook on reading and to prepare recommendations concerning its purpose and scope. After a deliberate study of recent trends and current needs, the committee heartily recommended such a yearbook and defined its major purposes as follows: "(*a*) to trace briefly the developments in the field of reading during the last decade and to identify the major problems which schools face today; (*b*) to provide in specific and nontechnical terms the information needed by teachers and school officers in reorganizing and improving instruction in reading; and (*c*) to provide, as a guide in the case of debatable issues, tentative suggestions formulated by groups of specialists after careful study." This statement of purpose, together with a tentative outline of the yearbook, was approved in principle in the early part of 1936, and the members of the yearbook committee were appointed.

The first task undertaken by the committee was to survey and to appraise the progress made during the last decade in improving the teaching of reading. In many respects the findings were gratifying. They showed clearly, for example, that the place of reading in the curriculum has greatly expanded and that the methods and materials used in teaching have improved rapidly. On the other hand, conditions were discovered which were not so satisfactory. For example, desirable reforms the theory of which has been widely accepted do not find expression in the reading programs of many school systems. Finally, certain needs and conditions have recently acquired new significance and merit careful consideration in any effort to improve the teaching of reading. For example, recent developments in educational theory and practice indicate clearly that reading programs should be better adapted to the needs, interests, and levels of development of children than they have been in the past.

---

[1] Comments on the Thirty-sixth Yearbook of the National Society for the Study of Education, Part I. Bloomington, Illinois. Public School Publishing Co., 1937. Pp. viii+442.

As a result of the initial survey the committee recognized the opportunity and obligation to recommend an improved reading program which would retain current trends of established worth, which would endeavor to eliminate undesirable practices, and which would provide adequately for new needs. The committee believed that, if this purpose could be achieved, instruction in reading should continue to improve during the next decade even more rapidly than it has improved during the past ten years.

In attempting to meet this obligation, the committee first identified significant facts, basic principles, and assumptions which underlie the type of reading program that is now urgently needed. As presented in the Thirty-sixth Yearbook, these serve as a platform on which the recommendations of the committee are based. As summarized below, they are combined with the major constructive proposals made in the yearbook.

1. Whereas the broad objectives of reading have changed but little during the last decade, various social objectives have recently assumed increased significance, such as the development of social understanding and ability to use reading in the intelligent search for truth; the promotion of a broad common culture and a growing appreciation of the finer elements in American life; and the stimulation of recreational-reading interests that promote personal welfare and social progress.

2. If such aims are fully attained, children and young people

should acquire greater efficiency in reading than they have acquired in the past. Increased efficiency includes, among other things, increased accuracy and independence in recognition and comprehension, greater breadth and depth of interpretation, increased efficiency in the use of what is read, wider familiarity with the sources and values of reading materials, and greater discrimination and skill in their use. The committee believes that the challenging problems involved should be attacked with renewed determination in the immediate future. The need is especially urgent in the upper grades and the high school.

3. In the foregoing proposals reading is recognized as a phase of child development rather than as an end in itself. Accordingly, the types of activities and guidance provided should be in keeping with the learners' interests, needs, capacities, and educational attainments. The development of comprehensive reading programs which shall be in harmony with this principle and which shall insure consistent and well-ordered growth presents a challenging problem of first importance.

4. Until further evidence develops, the committee recommends the continued use of special periods for basic or developmental instruction in reading from the earliest grades to the university. In this proposal the reading period is conceived as a component part of a co-ordinated program of teaching. The committee recognizes that moderately satisfactory results have often been achieved under highly favorable conditions (where there were available capable learners, highly competent teachers, and abundant reading materials of appropriate types) without special periods for basic instruction in reading. Even in such cases specific guidance in reading has usually been provided in various ways.

5. The yearbook gives vigorous emphasis to the fact that teachers of every curriculum field should assume added responsibility in stimulating and directing the reading experiences of pupils. In the judgment of the committee, the greatest opportunity for promoting increased reading efficiency in the immediate future lies in an intelligent and a vigorous attack on the reading problems encountered in the different curriculum fields.

6. The fact is recognized that during recent years significant

progress has been made in the preparation of readable materials for pupils at various levels of advancement. The committee believes that progress in this direction should be greatly accelerated during the next decade. Especially urgent is the need for material in the various curriculum fields that can be read with ease and understanding by pupils of limited reading ability.

7. During the last two decades notable progress has been made in stimulating among pupils interest in recreational reading. As revealed by recent surveys of what young people read, vigorous effort should be made in the future to cultivate tastes and appreciations far superior to those generally exhibited today.

8. The increasing importance attached to wide reading in various fields emphasizes the need for better school and classroom libraries. The committee recommends that state and local school systems at once adopt policies which will insure a rapid increase in the amount of appropriate reading material available for class and individual use.

9. The results of investigations of individual differences point clearly (*a*) to the importance of improved techniques of studying the needs and progress of children and of selecting reading materials that are better adapted to specific individuals and groups and (*b*) to the importance of flexible plans of class organization and standards of promotion that provide longer periods of effort uninterrupted by failure.

10. The facts presented in the yearbook show that continuous diagnosis and corrective and remedial instruction are imperative at all levels. The committee recommends, however, that in the future adequate provision be made for poor readers as a part of the program of basic instruction in reading. The evidence available justifies the conclusion that through such provision the need for specialized remedial classes can be greatly reduced in the future.

Underlying most of the foregoing proposals is a broader conception of reading than has generally prevailed in the past. At times reading has been defined primarily as a process of recognizing printed and written symbols. On other occasions reading has been defined as a process of comprehension, including a clear grasp of the important elements of meaning in their essential relations. A third definition implies that reading is a much more inclusive process It assumes that the reader not only recognizes the essential ideas presented but also reflects on their significance, evaluates them critically, discovers relationships among them, and clarifies his understanding of the facts apprehended. The committee believes that any conception of reading which fails to include reflection, critical evaluation, and the clarification of thinking is inadequate. It recognizes that this broad use of the term implies that "reading" includes much that psychologists and educators have commonly called "thinking." The committee does not object if anyone wishes to make a distinction between securing ideas on the one hand and using them in thinking on the other. It takes the position, however, that, since efficient readers do think about what they read while they are reading it, the teacher should provide needed stimulus and guidance both in securing ideas from the page and in dealing with the ideas reflectively.

Inherent in the foregoing discussion is the fact that reading is a form of experience which modifies personality. As pupils comprehend accurately, interpret broadly, and apply what they learn wisely, they acquire new understandings, broader interests, and deeper appreciations. Thus, personality is continually modified and enriched through reading. The fact is well known that reading, as well as other forms of experience, may produce various kinds of reaction—fear, ambition, appreciation, action. Teachers should realize that such responses are often aroused without adequate understanding on the part of the reader and that there may be decision and action without due consideration of all the facts involved. A properly conceived and an intelligently directed reading program should reduce such responses to the minimum and should aid materially in developing a generation of citizens with social, stable, and enriched personalities.

In adopting the broad definition of reading which has been outlined, the committee recognizes that to provide a complete and detailed program for realizing all the values suggested is at present impossible. It is willing to accept the criticisms that arise from such limitations. The committee is unanimous in its judgment, however, that a broad definition of reading is essential if instruction is to provide adequately for contemporary needs. In the various chapters of the yearbook many constructive suggestions are offered for improving current practice. Through creative effort in the classroom and laboratory, the program outlined should be improved and refined rapidly during the next few years.

The specific recommendations of the committee are presented in more or less detail in chapters iii–xiv, which bear the following titles: "The Place of Reading in the Curriculum," "The Nature and Organization of Basic Instruction in Reading," "Reading in the Various Fields of the Curriculum," "The Development of Reading Interests and Tastes," "The Materials of Reading," "The School Library," "Vocabulary Development," "The Improvement of Oral Reading," "Individual Differences and Their Implications with Respect to Instruction in Reading," "The Measurement and Evaluation of Achievement in Reading," "Diagnosis and Treatment of Extreme Cases of Reading Disability," "The Reorganization and Improvement of Instruction through Adequate Supervision."

In order to insure a broad consideration of the problems discussed in the yearbook, groups of specialists were associated with members of the committee in the preparation of the respective chapters. The function of each group was to advise its chairman concerning the scope and organization of the chapter for which he was responsible, to offer vigorous but constructive criticisms of the content of the chapter at various stages in its development, and to aid in formulating valid recommendations in the case of debatable issues. In view of the fact that the judgments of the members of a group often differed widely, the group chairman was authorized to formulate final recommendations, after considering carefully all the arguments and evidence presented. As a result some of the pronouncements do not represent the specific views of all who co-operated in the preparation of the chapter which includes them. The general plan adopted, however, had the unique advantage of providing the writers of the respective sections with critical judgments and constructive suggestions on which recommendations could be based

The limitations of the yearbook will be obvious to all who read it critically. Owing to the brief period allowed for its preparation, it does not represent as finished a product with respect to form, organization, and consistency in viewpoint as the 1925 report.

Owing to limitations of space, it was not possible to make detailed suggestions concerning many phases of reading in which teachers need help today. Furthermore, certain important topics included in the original outline had to be omitted; for example, the training of teachers of reading. If the program recommended in the yearbook is applied widely in the near future, current types of pre-service and in-service training must be radically modified.

Although the 1937 report has many limitations, the committee believes that it represents a significant step forward. We say "a step" because we recognize that many of the recommendations cannot be carried out fully without additional study and experimentation. It is hoped, therefore, that the present report will be as successful as the Twenty-fourth Yearbook in stimulating productive research and constructive effort in classrooms. As a result of vigorous effort in both directions, instruction in reading during the next decade should increase steadily both in breadth and in efficiency.

SELECTED REFERENCES FROM THE LITERATURE ON EXCEPTIONAL CHILDREN

GERTRUDE HILDRETH
Lincoln School of Teachers College, Columbia University
ELISE H. MARTENS
United States Office of Education

The references in the following bibliography from the literature on exceptional children are classified as follows: publications concerned with (1) subnormal and backward children, (2) behavior and problem cases, (3) juvenile delinquency, (4) superior and gifted children, (5) blind and partially seeing children, (6) crippled children, (7) deaf and hard-of-hearing children, (8) delicate children, (9) speech defectives, and (10) general references. The references in the first four of these classifications were compiled and annotated by Dr. Hildreth; those in the fifth to the ninth classifications, inclusive, by Dr. Martens. Each of the two compilers supplied general references.

SUBNORMAL AND BACKWARD CHILDREN[1]

226. ARMSTRONG, CLAIRETTE P. "Some Mental and Social Inadequates," *Journal of Abnormal and Social Psychology*, XXX (October–December, 1935), 371–83.

In a survey of New York City schools three-fourths of the mental defectives in ungraded classes were found to have foreign parents The author suggests that, in addition to enforcing laws excluding the feeble-minded, a law be enacted to admit only immigrants meeting the mental-ability standards of the general American population

227. ATHENS, IDA G. "The Activity Program for Mental Defectives," *Ohio Schools*, XIV (April, 1936), 124, 157.

The entire curriculum in an Ohio school was integrated and activity projects were developed for mentally defective children. The instructional goals sought were satisfactory social adjustment and character traits

228. BALLER, WARREN ROBERT *A Study of the Present Social Status of a Group of Adults, Who, When They Were in Elementary Schools, Were Classified*

---

[1] See also Item 212 (Farley) in the list of selected references appearing in the April, 1937, number of the *Elementary School Journal*

as Mentally Deficient. Genetic Psychology Monographs, Vol. XVIII, No. 3. Worcester, Massachusetts: Clark University Press, 1936. Pp. 165–244.

In a comparison of former special-class pupils over 21 years of age with intelligence quotients under 71 and normal adults matched for sex, nationality, and age, the special-class group was found to be economically, socially, and vocationally inferior.

229. BRILL, MOSHE. "Measuring Institutional Adjustment of Mentally Deficient Boys," *Journal of Applied Psychology*, XX (December, 1936), 736–47.

The Vineland Adjustment Score Card was found to differentiate reliably between adjusted and maladjusted boys in an institution for the mentally deficient.

230. CURTIS, FRANCIS D. "Specific Suggestions for Teaching Dull-normal Pupils," *School Review*, XLIV (September, 1936), 525–32.

A statement of twenty-four principles that apply to the instruction of dull-normal pupils in high school.

231. *Development and Progress of Special Classes for Mentally Deficient Children in Connecticut.* New Haven, Connecticut: Connecticut Special Education Association (31 Trumbull Street), 1936. Pp. vi+126.

Historical summary of special education in Connecticut. The work of the Connecticut Special Education Association is reported, and accounts are included of provisions for exceptional children in a number of cities in the state.

232. EARL, C. J. C. "The Affective-instinctive Psychology of Imbecile Children," *British Journal of Medical Psychology*, XV (February, 1936, Part 4), 266–78.

Mentally defective children differ from normal children in emotional maturity, affective-instinctive energy shown in attention and interest, low intelligence, physical maturity, and the frequency of abnormal trends.

233. HAMLEY, H. R., and OTHERS. *Education of Backward Children and Juvenile Delinquency in England and Wales.* London: Institute of Education, University of London, 1936. Pp. 104.

A symposium by several British authors. Part I of the report relates to the characteristics of backward and dull children, causes of backwardness, and the education of backward children. Part II considers psychological aspects of juvenile delinquency and surveys the problem.

234. MECKER, H. H. "An Experiment in the Adjustment of Retarded Upper-Grade Pupils," *National Elementary Principal*, XV (April, 1936), 162–65.

Adjustment programs, largely prevocational in character, were organized for retarded high-school pupils The programs did not require the pupils to meet the academic performance standards expected of normal pupils.

235. MEIER, C. "Effect of Prizes in Increasing the Word Learning of Subnormal Children," *Training School Bulletin*, XXXII (December, 1935), 146–57.

In an attempt to determine the effect of incentives in learning words, several types of incentives were used with a group of children ranging in age from six to thirteen years and in intelligence quotient from 33 to 70. The author concludes that extrinsic and artificial means of stimulation will always have to be used but that their limitations must be recognized.

236. MURPHY, M. "The Birth Order of Mongol and Other Feeble-minded Children," *Human Biology*, VIII (May, 1936), 256–66.

Mongol children tend to be born late in the family, even in families of two to five children The birth order of feeble-minded children not of this type is a matter of chance

237. O'CONNELL, ELENOR S. "Meeting the Special Needs of the Subnormal Pupil," *Ohio Schools*, XIV (November, 1936), 342.

Describes the equipment, methods, and courses used in a special class composed of boys and girls under eighteen years old who were unemployed and could not fit into regular classroom work.

238. *Organization of Special Classes for Subnormal Children.* University of the State of New York Bulletin No. 1073. Albany, New York: University of the State of New York Press, 1935. Pp. 10.

A revision of former bulletins on the subject of special classes for mentally handicapped children. The suggestion is made that the curriculum for these children must provide a series of activities which do not increase too rapidly in difficulty.

239. *Reducing Pupil Failure.* Report of the Committee of the New Jersey Elementary School Principals' Association in Co-operation with the State Department of Education. New Jersey Elementary Principals' Association Bulletin, Vol. VIII, No. 1. Bloomfield, New Jersey: New Jersey Elementary Principals' Association (John P. Milligan, % Watsessing School), 1935. Pp. x+60.

Evidence of the extent of failure in New Jersey schools was collected, and educators throughout the state contributed suggestions for reducing failure A summary of the literature relating to pupil failure is appended.

240. SMERLING, FRANK A. "What the Schools as Constituted at Present Can Do for the Low Ability Pupil," *High Points in the Work of the High Schools of the City of New York*, XVIII (June, 1936), 35–38.

The dull-normal pupil, constituting about 20 per cent of the high-school population, requires a type of curriculum radically different from that provided for normal pupils. The author recommends revision of the whole administrative structure of promotions and retardations with reference to physical and mental growth.

241. WALCOTT, FRED G. "New Methods and Objectives in Teaching Dull-normal Pupils To Read," *School Review*, XLIV (May, 1936), 348-61.

Large gains both in comprehension and in rate of reading were made by backward pupils in high school when a special program was provided for them. The author recommends earlier segregation of these pupils and a more intelligent differentiation of instructional procedure in the class unit itself.

242. WANGER, RUTH. "Unwillingly to School," *Junior-Senior High School Clearing House*, X (May, 1936), 535-38.

An attempt was made in a high school for girls to find course work suited to the abilities of the slow pupils. At the end of the year only one failure was reported.

243. WITTY, PAUL A. "Special Class Curricula for the Retarded," *Illinois Teacher*, XXIV (January, 1936), 132-34, 158.

Studies of the education of feeble-minded children are summarized by the author, who recommends that the education of the feeble-minded pupil should be child-centered. Describes the curriculum used at the Montefiore Special School, Chicago, which is based on a study of the activity preferences of retarded children.

BEHAVIOR AND PROBLEM CASES

244. ANDERSON, FORREST N. "A Mental-Hygiene Survey of Problem Indian Children in Oklahoma," *Mental Hygiene*, XX (July, 1936), 472-76.

Two hundred and thirty-five problem cases were studied by means of physical and neurological examinations, psychiatric interviews, and two or more psychological tests. The cases were found not to be representative of a cross-section of Indian children in the area studied.

245. *Behavior Problems in the Secondary Schools*. Summit, New Jersey: New Jersey Secondary School Teachers' Association (Charles H. Beck, President, % Junior High School), 1935. Pp. 32.

Describes behavior problems most frequently encountered in the secondary school. For each type of problem the causes and frequency are listed and discussed.

246. CAMPBELL, NELLIE M. *The Elementary School Teacher's Treatment of Classroom Behavior Problems*. Teachers College Contributions to Education, No. 668. New York: Teachers College, Columbia University, 1935. Pp. vi+72.

Overt actions interfering with order in the classroom or with the authority and purposes of the teacher are most frequently reported by teachers as important behavior problems.

247. LOUTTIT, C. M. *Clinical Psychology*. New York: Harper & Bros., 1936. Pp. xx+696.

Major emphasis is given to behavior problems, including problems related to mental deficiency, primary behavior problems, juvenile delinquency, conduct problems, speech defects, psychoneuroses, and problems correlated with organic disabilities.

248. LURIE, L. A., TIETZ, E. B., and HERTZMAN, J. "Functional Psychoses in Children," *American Journal of Psychiatry*, XCII (March, 1936), 1169–84.

Two per cent of the problem children studied in a child-guidance home presented symptoms of definite psychoses Illustrative cases are given.

249. MARKEY, OSCAR B. "The Problem Child in the Nursery School," *Progressive Education*, XIII (March, 1936), 160–67.

The treatment of problem children in the nursery school involves a number of specific guidance techniques. Parent education is indispensable. Preschool experts are less concerned with the treatment of specific behavior signs than with an appreciation of the child's deeper needs.

250 MEEK, LOIS HAYDEN. "Behavior Problems in the School," *Teachers College Record*, XXXVII (January, 1936), 300–304.

Behavior problems are caused by conflicts between the child and the person who attempts to control his behavior. The traditional school organization conflicts directly with the natural activities of children. The solution of behavior problems lies in revitalizing the curriculum and methods of teaching.

251. MORGAN, JOHN J. B. *The Psychology of the Unadjusted School Child.* New York: Macmillan Co., 1936 (revised). Pp. viii+340.

The subjects discussed include defense mechanisms, memory distortions, daydreaming, fears, feelings of insecurity, instability, intellectual defects, and delinquency. Illustrations of cases are included.

252. NIFENECKER, EUGENE A. "Review of Departmental Experience in Dealing with Problem of School Maladjustment: Part I, Statistical Reference Data Showing School Background Conditions, Factors, Trends and Problems, 1900–1934." Publication No. 27. New York: Bureau of Reference, Research, and Statistics, Board of Education of the City of New York, 1936. Pp. 216.

A report prepared for the Joint Committee on Problems of School Maladjustment

253. ROHRBAUGH, LEWIS. "The Backgrounds of Minor Transiency," *School and Society*, XLIII (April, 1936), 583–84.

An analysis of the reasons why minor transients leave home

JUVENILE DELINQUENCY[1]

254. ABBOTT, GRACE "Juvenile Court and a Community Program for Treating and Preventing Delinquency," *Social Service Review*, X (June, 1936), 227–42.

A discussion of the part that community agencies, such as schools, recreation centers, social workers, and the juvenile court, should play in delinquency prevention and treatment.

---

[1] See also Item 351 (Healy and Bronner) in the list of selected references appearing in the May, 1937, number of the *School Review*

255. ADAMS, JANE; ARNOLD, MARJORIE; and WITMER, HELEN. "Recidivism among Juvenile Delinquents Examined by the Illinois Institute for Juvenile Research," *Smith College Studies in Social Work*, VI (June, 1936), 293-323.

Reports an investigation undertaken to determine the later behavior of a group of delinquents referred by the Juvenile Court in Chicago for examination at the Illinois Institute for Juvenile Research. The authors recommend a close study of personality trends and environmental situations to determine why some children and not others become recidivists.

256. ALPER, BENEDICT S., and LODGEN, GEORGE E. "The Delinquent Child in Pennsylvania Courts," *Mental Hygiene*, XX (October, 1936), 598-604.

Among 3,281 cases in the juvenile courts in 60 Pennsylvania counties the boys outnumbered the girls three to one. Other findings relating to probation and commitment are reported.

257. BARTLETT, EDWARD R., and HARRIS, DALE B. "Personality Factors in Delinquency," *School and Society*, XLIII (May, 1936), 653-56.

In a study of delinquent and non-delinquent groups, the delinquents showed greater emotional instability and had more difficulty in maintaining satisfactory home and social relationships than the non-delinquents.

258. BOWLER, ALIDA C., and BLOODGOOD, RUTH S. *Institutional Treatment of Delinquent Boys*, Part II. United States Children's Bureau Publication No. 230, 1936. Pp. vi+150.

An intensive case study was made of 751 boys who had been released from five state institutions five or more years before the study. Suggestions for the more effective handling of delinquents are given.

259. CARR, LOWELL J. *Organizing To Reduce Delinquency*. Ann Arbor, Michigan: Michigan Juvenile Delinquency Information Service, 1936. Pp. 60.

This report outlines the Michigan Plan for Better Citizenship as a program for delinquency prevention in the state. The need of clearing-houses for controlling juvenile conduct is emphasized.

260. CHARLES, CECIL M. "A Comparison of the Intelligence Quotients of Incarcerated Delinquent White and American Negro Boys and of Groups of St. Louis Public School Boys," *Journal of Applied Psychology*, XX (August, 1936), 499-510.

Intelligence tests of public-school boys in St Louis between the ages of twelve and sixteen prove them to be superior to boys of similar ages in reform schools.

261. DUREA, MERVIN A. "A Quantitative Method for Diagnosing the Seriousness of Asocial Behavior of Juvenile Delinquents," *Journal of General Psychology*, XIV (April, 1936), 412-21.

Three criteria of delinquency are combined into a delinquency index, which is useful in differentiating delinquent and non-delinquent juveniles.

262. ECCLES, AUGUST K. "Seventy Out of a Thousand," *Training School Bulletin*, XXXII (January, 1936), 172–79.

    A study of delinquents under eleven years of age, including data regarding ability, achievement, and home situation

263. FENDRICK, PAUL, and BOND, GUY. "Delinquency and Reading," *Pedagogical Seminary and Journal of Genetic Psychology*, XLVIII (March, 1936), 236–43.

    In a group of delinquents over 90 per cent were found to have been school failures. The group as a whole was retarded in reading to the extent of approximately five years and eight months.

264. GLUECK, SHELDON, and GLUECK, ELEANOR (Editors). *Preventing Crime.* New York: McGraw-Hill Book Co., Inc., 1936. Pp. xii+510.

    A symposium containing contributions by twenty-six authorities in the field of crime and delinquency. Reports are included of the most promising representative efforts that have been made throughout the country in reducing crime through constructive work with youth

265. GOLDBERG, JACOB A., and GOLDBERG, ROSAMOND W *Girls on City Streets—A Study of 1400 Cases of Rape.* New York: American Social Hygiene Association, 1935. Pp. 384.

    The median age of the girls reported in this study was fourteen, and the largest proportions were in Grades VI and VII. As a group they were educationally retarded. Descriptions of specific cases are included.

266. "The Jersey City Plan for the Prevention of Juvenile Delinquency," *Elementary School Journal*, XXXVI (May, 1936), 650–52.

    To prevent delinquency in Jersey City, community groups, schools, the police, correctional and municipal institutions have joined forces in the last three years. Juvenile cases are handled by the Bureau of Special Service of the Jersey City Board of Education.

267. JONES, MARSHALL E. "Foster-Home Care of Delinquent Children," *Social Service Review*, X (September, 1936), 450–63.

    The advantages and some of the problems arising in delinquency therapy provided through foster-home placement are described.

268. *Juvenile Court Statistics and Federal Juvenile Offenders, 1933.* United States Children's Bureau Publication No. 232, 1936 Pp. iv+114.

    This report summarizes data based on information from 284 juvenile courts and the United States Department of Justice.

269. *Juvenile Delinquents in Public Institutions, 1933.* Washington: United States Bureau of the Census, 1936 Pp iv+62.

    Statistics of this study relate to juvenile delinquents from 145 state or federal institutions in 1933.

270. LYON, VERNE W. "Deception Tests with Juvenile Delinquents," *Pedagogical Seminary and Journal of Genetic Psychology*, XLVIII (June, 1936), 494–97.

    Delinquency tests measuring circulatory and respiratory changes were made of a hundred random cases of juveniles suspected of deception. In over 50 per cent of the cases the technique was considered helpful in determining the facts and selecting suspects accurately.

271. MOORE, JOSEPH E. "A Comparative Study of the Educational Achievement of Delinquent and Dependent Boys," *Peabody Journal of Education*, XIV (July, 1936), 1–6.

    Delinquent boys proved to be considerably below normal in educational achievement.

272. MOSES, EARL R. "Community Factors in Negro Delinquency," *Journal of Negro Education*, V (April, 1936), 220–27.

    The author maintains that the settling of negro immigrant families in areas of deterioration and disorganization accounts for the abnormally high increase in juvenile delinquency among the negro population as compared with the general population.

273. ROBISON, SOPHIA M. *Can Delinquency Be Measured?* Studies of the Research Bureau of the Welfare Council of New York, No. 12. New York: Columbia University Press, 1936. Pp. xxvi+278.

    The author concludes that court appearances are unsatisfactory as a criterion of delinquency; that complicated, quantitative methods may be misleading. Improvement in studying delinquency can be attained by defining specific behavior types and considering the cultural factors.

274. SULLENGER, THOMAS E. *Social Determinants in Juvenile Delinquency.* New York: John Wiley & Sons, 1936. Pp. x+412.

    A close association was found to exist between broken homes and delinquency. Unsupervised, misdirected recreation is a large determining factor. Suggestions for delinquency prevention are given.

275. THRASHER, FREDERIC M. "The Boys' Club and Juvenile Delinquency," *American Journal of Sociology*, XLII (July, 1936), 66–80.

    The boys' club as a therapeutic measure did not prove, during its first four years, to be an important factor in delinquency prevention.

276. VAN VECHTEN, COURTLANDT CHURCHILL, JR. *A Study of Success and Failure of One Thousand Delinquents Committed to a Boys' Republic.* Chicago: Private edition distributed by the University of Chicago Libraries, 1935. Pp. vi+168.

    Residence in a boys' republic, with emphasis on self-government, is beneficial only for a limited group of delinquents. Conditions under which self-government institutions are effective in dealing with delinquency are considered.

277. WALTZ, HENRY W., JR. "Community Experiment in the Prevention and Treatment of Juvenile Delinquency," *Journal of Educational Sociology*, X (September, 1936), 43–49.

A description of an experimental juvenile-probation project conducted in Chicago in which the co-operation of local agencies was enlisted Extensive group work with children is recommended.

278. WHITE, R. CLYDE. "Delinquency Areas in Indianapolis," *Indiana Bulletin of Charities and Correction*, No. 222 (June, 1936), pp 161–66.

Juvenile delinquency was found concentrated in areas similar to those reported in other studies.

SUPERIOR AND GIFTED CHILDREN[1]

279. AVERILL, ESTHER C. "Art and the Talented Child," *School Arts Magazine*, XXXV (May, 1936), 563–66.

From a study of a gifted ten-year-old child the author concludes that pupils gifted in art may be allowed freedom to express their ideas and that they have little need of direction or rules.

280. HOLLINGWORTH, LETA S. "The Development of Personality in Highly Intelligent Children," *Personality Adjustment of the Elementary-School Child*, pp. 272–81. Fifteenth Yearbook of the Department of Elementary School Principals. Bulletin of the Department of Elementary School Principals, Vol. XV, No 6. Washington: Department of Elementary School Principals of the National Education Association, 1936.

Parents who wish their child to enjoy every advantage could wish for nothing better than that he be endowed with intelligence represented in the intelligence-quotient level of 130–60. With an intelligence quotient above 160 the great deviation from average leads to special problems of development and adjustment.

281. LORGE, IRVING, and HOLLINGWORTH, LETA S. "Adult Status of Highly Intelligent Children," *Pedagogical Seminary and Journal of Genetic Psychology*, XLIX (September, 1936), 215–26.

Children with intelligence quotients at or above 140 represent approximately the seventy-fifth percentile of college graduates Only those with intelligence quotients above 180 constitute the most gifted college-graduate group

282. MERSAND, JOSEPH. "How Should the Teacher Carry on Work for the Gifted Child?" *High Points in the Work of the High Schools of the City of New York*, XVIII (September, 1936), 42–50.

The author recommends that gifted high-school pupils be segregated into classes of their own intellectual and achievement levels and that the teachers have access to all school facilities and be permitted to construct their own curriculums.

---

[1] See also Item 378 (Engle) and 387 (Witty) in the list of selected references appearing in the September, 1936, number of the *Elementary School Journal;* Item 480 (Wilkins) in the September, 1936, *School Review;* and Item 328 (Jenkins) in the May, 1937, *School Review.*

283. MILES, CATHARINE C., and WOLFE, LILLIAN S. "Childhood Physical and Mental Health Records of Historical Geniuses," *Psychological Studies of Human Variability*, pp. 390–400. Psychological Monographs, Vol. XLVII, No. 2. Princeton, New Jersey: Psychological Review Co., 1936.

Fifty geniuses reported in history were rated for physical and mental health. The distribution for the fifty individuals with respect to these characteristics was found to be fairly normal.

284. SIDGWICK, FRANK (Editor). *Complete Marjory Fleming—Her Journals, Letters and Verses.* New York: Oxford University Press, 1935. Pp. xxii+208.

The writings of a child prodigy who lived a century ago are reproduced exactly as they were originally written.

285. ZORBAUGH, HARVEY W. (Editor). "Gifted and Talented Children," *Journal of Educational Sociology*, X (October, 1936), 65–128.

The whole issue is devoted to the theme "Gifted and Talented Children." Contains articles on the gifted child in art and in music, a description of Terman classes in a public school, a discussion of clinical problems presented by bright children, and a plea by the editor for conservation of the talents possessed by gifted children.

BLIND AND PARTIALLY SEEING CHILDREN

286. COVILLE, M. GENEVIEVE. "Blind Pupils in Public Schools," *Teachers Forum for Instructors of Blind Children*, VIII (March, 1936), 69–70, 76–77.

Describes the desirable results of the practice of the Virginia School for the Blind of transferring certain pupils to the public-school system after the termination of their second year of high-school work. In both blind and seeing children an understanding of each other and a helpful co-operation in many social activities are developed.

287. DEGNAN, WALTER J. "A Health Education Program for Blind Boys," *High Points in the Work of the High Schools of the City of New York*, XVIII (April, 1936), 5–11.

"A physical-education program for the blind is necessary to preserve and improve the health of the child, to contribute to his enjoyment of life, and to adjust him to live the type of life that his seeing brother lives." Suggestions are given for building such a program, on the basis of work done with a group of blind boys in one of the New York City high schools.

288 HASLIP, MELVIN. "Shoe Repair as a Vocational Study in the Michigan School for the Blind," *Teachers Forum for Instructors of Blind Children*, VIII (May, 1936), 82–90.

Describes a course in shoe-repairing given to blind students and discusses the possibilities of shoe-repairing as a vocational outlet for these handicapped persons. The author is himself without sight and conducts a shoe shop of his own.

289. HERSHEY, EDYTHE P. "A Sight Conservation Program in School," *Sight-saving Review*, VI (March, 1936), 50–55.

Any comprehensive sight-conservation program, as recommended by the author, should include: (1) routine annual examination of children, to determine those who have defective vision, (2) a follow-up program for correction of such defects, (3) a study of findings to determine the cause and prevention of impaired vision and its relation to school progress, and (4) health education for care of the eyes The methods used in the Dallas, Texas, public schools are described.

290. INGRAM, CHRISTINE P "Education for the Visually Handicapped," *Sight-saving Review*, VI (September, 1936), 212–18.

Describes experiences in sight-saving classes in the schools of Rochester, New York. Discusses standards of admission, objectives, special equipment, and community responsibility

291. MAXFIELD, KATHRYN E. *The Spoken Language of the Blind Preschool Child*. Archives of Psychology, No. 201. New York. Columbia University, 1936. Pp. 100.

The study was conducted "for the purpose of choosing methods and procedures for future work on the spoken language of preschool visually handicapped children." On the basis of verbatim reports of the children's spontaneous language during the day, the content of their speech was classified into four types of items: (1) functional use of language, (2) social indexes, (3) constructional nature of speech, and (4) special features of language. The findings are expected to form the basis for a series of related longitudinal studies covering this field

292. MERRILL, ELEANOR BROWN "Occupational Adjustment of the Visually Handicapped," *Sight-saving Review*, VI (September, 1936), 192–97.

Cites several individual instances of occupational adjustments which illustrate methods and sources of obtaining help in such cases Emphasizes the need of co-ordination of services among all agencies involved.

293. O'TOOLE, CHARLES E. "Vocational Opportunities for Sight-saving Class Students," *Sight-saving Review*, VI (June, 1936), 131–35.

Describes vocational-guidance program for the partially seeing pupils in New York City sight-conservation classes. The author says. "I prefer to think that an occupation should be considered non-suitable for the partially sighted only after it has been determined so from all the factors involved in occupational analysis as related to each degree of sight disability."

294. RICH, FRANK M. "School Art for the Blind," *School Arts Magazine*, XXXV (May, 1936), 520–24.

Describes a process of making pictures with raised lines and with materials which give a roughness and variety of texture conveying a sense of reality to the blind and capable of tactile interpretation by them.

CRIPPLED CHILDREN

295. BEATTY, HUGH GIBSON. "Harelip and Cleft Palate Deformities," *Crippled Child*, XIII (April, 1936), 166-69, 182.

Discusses the nature and effects of these handicaps and the possibilities of treatment and correction.

296. EVANS, WILLIAM A. "The James E. Roberts School," *American School Board Journal*, XCIV (January, 1937), 51-55.

Describes the building, equipment, and special facilities in a school for crippled children in Indianapolis.

297. FOLEY, MARIE RAINEY. "A Library for Crippled Children," *Crippled Child*, XIII (February, 1936), 137-38.

Describes library methods followed by the Gillette State Hospital in St. Paul, Minnesota, to provide the crippled patients with suitable reading material. The work is planned from two points of view: therapeutic and educational.

298. INGRAM, MARGUERITE L. "The Crippled Child in School," *Crippled Child*, XIV (October, 1936), 60-62.

Recommends the boarding school to meet the needs of children having extreme orthopedic disabilities who cannot be served through the local orthopedic school. Calls attention to the need of planning educational programs for crippled children with full information on the medical diagnosis and recommendations.

299. STRAUSS, MARION. "Initiative and the Crippled Child," *Crippled Child*, XIII (April, 1936), 164-65, 182-83.

The author describes evidence of lack of initiative observed in a school for crippled children, analyzes possible causes for the condition, and makes suggestions for developing this quality. Written on the basis of experience at the Elias Michael School for Crippled Children in St. Louis, Missouri

300. STRAUSS, MARION. "Telling Time throughout the Ages," *Journal of Exceptional Children*, III (February, 1937), 75-78, 88-89.

A description of a curricular activity used with a sixth-grade class in the Elias Michael School for Crippled Children in St. Louis, Missouri.

301. WOODWORTH, LEON M. "Illness No Barrier to Education," *New York State Education*, XXIV (January, 1937), 320-22, 334-36.

Describes educational activities carried on at the New York State Reconstruction Home at West Haverstraw, a combined school and hospital for crippled children.

DEAF AND HARD-OF-HEARING CHILDREN[1]

302. BLUETT, C. G. "Counseling the Hard of Hearing," *Occupations*, XV (February, 1937), 412–16.

Suggestions to school counselors in guiding the vocational choices of hard-of-hearing children. Lists the occupational choices made by 233 hard-of-hearing clients of the San Francisco District of the California State Bureau of Vocational Rehabilitation and shows the vocational advantage of the guided over the unguided hard-of-hearing individual

303. GUILDER, RUTH P., and HOPKINS, LOUISE A "The Importance of Auditory Function Studies in the Educational Program for the Auditorially Handicapped Child," *Volta Review*, XXXVIII (February and March, 1936), 69–74, 116–17, 149–55, 180–81.

The authors point out the increasing need of knowing the type and the extent of the child's hearing handicap: first, as a basis for selection of children requiring special attention, second, as a basis for class division, in conjunction with mental achievement, in special schools and classes; and, third, as a guide to the teacher in work with the individual child

304. MCNEILL, NAOMI. "Why Wait Until They Are Five?" *Volta Review*, XXXVIII (September, 1936), 501–4, 542–43

An account of the nursery-school activities carried on for hard-of-hearing children under the direction of the Rochester (New York) Board of Education and supervised by the Department of Parent Education and Child Development, with the co-operation of the Rochester School for the Deaf and with financial support from the Works Progress Administration

305. MARTENS, ELISE H., and OTHERS. *The Deaf and the Hard-of-Hearing in the Occupational World.* United States Office of Education Bulletin No. 13, 1936. Pp. 96.

A survey was carried on under the Civil Works Administration to determine the types of occupations for which deaf and hard-of-hearing young people can most successfully be prepared. Findings are based on a study of factors connected with the employment status of 19,580 deaf and hard-of-hearing adults.

306. PINTNER, R., and BRUNSCHWIG, L. "Some Personality Adjustments of Deaf Children in Relation to Two Different Factors," *Pedagogical Seminary and Journal of Genetic Psychology*, XLIX (December, 1936), 377–88.

On the basis of a personality inventory constructed to meet the special limitations of the deaf because of their "relatively immature thinking habits" and language usage, certain pupils of residential schools for the deaf were studied with respect to the relation between their social adjustment and (1) the method by which they were being taught and (2) the amount of deafness in each subject's family.

---

[1] See also Item 349 (Brunschwig) in the list of selected references appearing in the May, 1937, number of the *School Review*

307. POPE, ALVIN E. "The Use of Hearing Tests and Hearing Aids in the Education of the Deaf," *American Annals of the Deaf*, LXXXI (September, 1936), 323–32.

Discusses the values of acoustic training in schools for the deaf, desirable procedures, and requirements for successful outcomes. The author believes that "the advances in instrumental aid offer wonderful opportunities to educators of the deaf." The paper was given at the seventeenth meeting of the Conference of Executives of American Schools for the Deaf and was followed by extensive discussion, also printed in this issue of the *Annals*.

308. SCYSTER, MARGARET. "Summary of Four Years' Experiment with Preschool Deaf Children at the Illinois School for the Deaf," *American Annals of the Deaf*, LXXXI (May, 1936), 212–30.

This summary presents reasons for conducting the experiment and describes pupils and living conditions, tests and measurements used, curriculum activities, and play materials. It discusses also the influence of preschool training in the home life of the deaf child. Cases studied included fifty preschool deaf children, fifty children between six and seven years of age entering school for the first time, and a control group of twenty-five preschool-age hearing children. The question toward the answer of which the study was directed is: Will the preschool-trained deaf child be better equipped for learning and for living than a child not so trained? Follow-up is now in progress.

309. WYMAN, MARY MAY. "Conserving the Vision of Deaf and Hard-of-Hearing Children," *Sight-saving Review*, VI (September, 1936), 204–11.

"Special attention must be paid to the vision of those children who possess the handicap of deafness" since their eyes must do double duty throughout life Discusses the elements of schoolroom arrangement and equipment that are essential in conserving the sight of these children.

DELICATE CHILDREN

310. *Open Air Classrooms*. New York: National Tuberculosis Association, 1937. Pp. 14.

A report of the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association. Discusses the advantages of open-air classes and the need of all children for the facilities thus made available.

311. ROBINSON, H. C. "Conservation and Development of Children with Heart Disease," *Journal of Exceptional Children*, III (February, 1937), 79–82.

Points out that 1½ per cent of children of school age have organic heart disease and that about 44 per cent of these have an impairment serious enough to make them eligible for special classes. Discusses problems of understanding, rest, and exercise as related to the protection of the child and his best development

312. ROGERS, JAMES F. *What Every Teacher Should Know about the Physical Condition of Her Pupils.* United States Office of Education Pamphlet No. 68 (1936). Pp. 30.

Gives practical suggestions for checking the child's physical condition in order that his body may be put in the best possible working condition. Means of detecting serious handicaps are noted and described.

313. STRACHAN, LOUISE. "Open Air Education in Germany," *Journal of Exceptional Children,* III (December, 1936), 39–44.

On the basis of observations made in Germany the author discusses elements of the program under way in that country Emphasis is placed on open-air education for all children, not only for those recognized as tuberculous, pretuberculous, or delicate.

SPEECH DEFECTIVES

314. BLANTON, SMILEY, and ZERLER, MARY LOUISE. "Helping the Child Who Stutters," *National Parent-Teacher Magazine,* XXXI (October, 1936), 14–15, 22.

"Any break in the rhythm of speech indicates maladjustment or an inability to meet the situation in an easy, natural way" The article gives helpful suggestions to parents and teachers concerning methods of ascertaining the causes of maladjustment and of meeting the problem of stuttering.

315. DAVISON, LOUISE D. "Methods for Treatment of Disorders of Speech Due to Birth Injury," *Quarterly Journal of Speech,* XXII (October, 1936), 404–12.

Gives case studies of children so handicapped, describing in detail methods of treatment used. Working for motor control and speech response through physical therapy is the basis of the method employed.

316. KROUT, MAURICE H. "Emotional Factors in the Etiology of Stammering," *Journal of Abnormal and Social Psychology,* XXXI (July–September, 1936), 174–81.

Describes in detail three case studies of stammerers of eighteen to twenty-one years of age which disclosed emotional conflicts dating back to childhood days. These conflicts seemed to have direct bearing on the stammering, and the treatment given involved assistance in overcoming the emotional problems

317. MASE, DARREL J. "A Speech Corrective Program for the Teachers College," *Quarterly Journal of Speech,* XXII (December, 1936), 618–26.

Presents observations as to method of establishing a speech-corrective program in a teachers' college and objectives of such a program. Based on experience in this field in State Teachers College, California, Pennsylvania

318. OTTO, HENRY J. "Utilizing Teachers' Special Talents in Small Schools," *Educational Administration and Supervision,* XXIII (January, 1937), 35–42.

"This article deals with a method of providing instruction in speech correction for children in typically rural counties." It describes a project carried on in co-operation with the W. K Kellogg Foundation in four rural counties of Michigan whereby scholarships for an eight-weeks intensive course in speech correction were provided for specially selected regular teachers in the counties included. Each teacher then did special work in speech correction in the schools of her district.

319. WEST, ROBERT. "Is Stuttering Abnormal?" *Journal of Abnormal and Social Psychology*, XXXI (April–June, 1936), 76–86.

Discusses various theories of causation of stuttering and gives suggestions concerning prognosis and treatment.

GENERAL REFERENCES[1]

320. LAYCOCK, S. R. "Mental Hygiene in Special Education," *Journal of Exceptional Children*, III (October, 1936), 2–9.

Considers six positive criteria for mental health and applies them to practices with exceptional children, both handicapped and gifted.

321. THOMPSON, K. L. "Jersey City's School-Community Program," *Journal of Educational Sociology*, IX (February, 1936), 364–69.

Besides providing the traditional elementary- and secondary-school program, Jersey City is attempting to serve the community by providing for the education of the foreign-born, for the adult, the physically handicapped, the mentally handicapped, and the maladjusted. Special mention is made of the Bureau of Special Service, the purpose of which is to integrate all community services in the diagnosis and treatment of special problems.

---

[1] See also Item 324 (Bentley) in the list of selected references appearing in the May, 1937, number of the *School Review*.

REVIEWS AND BOOK NOTES

The story of a great adventure in education.—When the recent history of American education is evaluated, the experimental school inaugurated by John Dewey in his early years at the University of Chicago will be regarded as the beginning of one of the most significant educational movements of modern times. It comes somewhat as a shock to the casual observer of the educational scene to realize that there has been no authoritative and detailed account of this pioneer experiment in progressive education. It is therefore an occasion for genuine gratitude among educators everywhere that a prominent publisher should bring out a complete and competent exposition of this history-making venture in socialized education.[1]

In view of the historical nature of this publication, it is important that some reference be made to the competence of the authors to undertake this task:

> The authors were both teachers in the school. Katherine Camp Mayhew, as vice-principal, was in charge of the developing curriculum; she was also head of the science department. Anna Camp Edwards was a teacher of history in the early experimental period and later as a special tutor followed through the work of all other departments at older age levels, an experience which has aided her in interpreting the value of Mr Dewey's philosophy of education in the present crisis [p vii].

The plan of the study was worked out in close co-operation with Mr. Dewey, who has guided the entire development of the book. The authors also had access to the original records as well as to the complete file of early publications describing the venture, which in many instances are now out of print. Further evidence of the authoritative character of this account is contained in the Introduction of the book, which Mr Dewey himself has written.

The major content of the book is drawn up in four divisions and three appendixes. Chapter i of Part I in seventeen pages presents a brief historical account of the school's beginnings, the main principles of its hypotheses and method, and a general statement of how these principles were worked out through the activities of the pupils. Chapter ii gives a detailed account of the precariously experimental period of the first two years, during which the curriculum gradually took form. The first chapter in Part II considers, from a psychological and social point of view, the theoretical basis for the selection of activities as subject matter for the elementary curriculum. The remaining chapters of Part II and Part III constitute the major portion of the book. They are devoted to detailed description of the materials and activities of the school's slowly evolving curriculum.

---

[1] Katherine Camp Mayhew and Anna Camp Edwards, *The Dewey School.* The Laboratory School of the University of Chicago, 1896–1903. New York: D. Appleton-Century Co., Inc., 1936 Pp. xvi+490. $2 50.

The first chapter of Part IV is given over to the teacher's place in the scheme of the school, with particular emphasis on the freedom of the teacher and on her development. The next chapter describes the part played by the parents and the pupils and emphasizes the co-operative spirit which suffused the whole undertaking. The final chapter devotes twenty-nine pages to an evaluation of the practices and principles of the school. The first two Appendixes present important papers with respect to Mr. Dewey's philosophy of education, and the last Appendix contains a list of the teachers and assistants in the Laboratory School.

One interesting aspect of the book is the inclusion of statements made by former pupils evaluating the influence of the school on their development. These statements are favorable to the school and are very revealing. They represent only a small number of the persons who must have participated in this unique educational adventure and are not therefore an adequate sampling for purposes of scientific appraisal. Nevertheless, even these few data suggest that it would be a great contribution to education if someone would continue this part of the story from the point where the authors have left it by canvassing the remaining living members of the alumni association of the Dewey School.

Whatever one's philosophy of education or predilection with regard to pedagogical practice, this document is a valuable—the reviewer is tempted to say, an indispensable—contribution to educational literature. The use of the word "historical" in the course of this review may lead the reader to regard this book as being of value only to the student of the history of modern education. Such an impression would be untrue and unfortunate; for this account has equally great value for the student of modern educational trends. All phases of school work have been integrated so thoroughly and the book is essentially so contemporary that the administrator, the classroom teacher, and experts in curriculum, psychology, philosophy, and sociology of education will be greatly stimulated by this presentation. There is probably no better account of the modern progressive school in print.

HOWARD Y McCLUSKY

UNIVERSITY OF MICHIGAN

An interpretation of education by twenty-five psychologists and educators.—The following quotations from the Preface and introductory chapter describe well the character of a book on educational psychology edited by Skinner.[1]

---

[1] *Educational Psychology.* Edited by Charles E. Skinner. New York: Prentice-Hall, Inc., 1936. Pp. xxvi+754. $3.20.

> Major emphasis has been placed on such "master ideas" as *continuous growth, goal seeking, intelligent self-direction, pupil purposing, creative experiencing, and social functioning* [p. vi].
>
> The aims and objectives of educational psychology, therefore, center in the fundamental problem of promoting continuous growth and wholesome personality development through: (1) *increasing ability for intelligent self-direction in the changing social order;* and (2) *increasing ability for discriminative social functioning.* The emphasis is on growth and conduct [p 14].
>
> Educational psychology assists the educator in attaining his aims. (1) *by enhancing and enriching his own life;* and (2) *by helping him bring about improvement in the quality of instruction* [p. 15].

This book does not consist merely of a collection of probably useful facts and principles of psychology as do so many elementary textbooks in this field. Throughout its pages there is usually present an organic union between psychology and educational theory and practice.

Whether in consequence of editorial design or good writing, T. R McConnell's chapter on "The General Nature of Growth" provides a summary of fact and principle that is unequaled in its value for students of education. The other nine chapters of the section on growth develop the details and the educational meaning of this first chapter to make a complete and well-integrated treatment. The chapters on growth provide so well for an acquaintance with the more fundamental principles of learning that the treatment of these principles in a special section seems weak. There is, however, a particularly good chapter on transfer of training by Webb He has succeeded well in pointing out the more important educational meanings of the facts of transfer:

> Too often teachers have worked on the principle that the fixing of habits is the desirable educational outcome That is exactly what will happen under such a method of teaching. The students learn to repeat the materials in the particular situation of the classroom and are unable to apply them when opportunity is offered elsewhere The situations of life are constantly changing, highly variable. This fact means that pliability and not rigidity of habits and skills should be the end sought, and the procedures of the classroom should be organized with this end in view [p. 349].

The chapter on the learning of special school subjects is satisfactorily complete but not burdensome. It wisely treats of developmental principles rather than of detailed special methods of teaching.

Measurement is treated in subordination to individual differences. There is adequate discussion of intelligence tests, educational tests, and the factual information that has been obtained by applying tests in research investigations. The reader could wish that these chapters contained more of stimulating suggestions for educational procedures similar to those found in the earlier chapters on growth.

The importance of personal adjustment and guidance is recognized in five excellent chapters that are rich in both psychological and educational principles.

The book concludes with a summary of viewpoints concerning learning that is not up to the high standards set by earlier portions of the work. This summary will scarcely prove interesting or instructive to the college student or to the teacher in public schools.

The collaborators have produced a comprehensive, well-written, and well-integrated presentation of psychological principles and have succeeded in showing their educational meaning. They have avoided both superficial treatment and presentation of irrelevant detail. They have produced a work that belongs among the superior books for use in first courses in educational psychology. It is also worth careful reading by experienced teachers for revision and confirmation of their theory and practice.

C. E. RAGSDALE

UNIVERSITY OF WISCONSIN

A health program for Grade II.—The health program is the business of parents. Where the school must be responsible, however, the ideal program is one in which hungry children are fed, dirty children are made clean, and children with incipient diseases are removed from the teaching group until they are well. Where this program is not possible and books must be used as aids, the books should be selected because the facts are simply and directly presented. A recent book[1] performs this task very well in a few chapters but spoils the sincerity of the material by introducing such artificial characters as Princess Dark, the Queen of Health, and Dr. Fresh Air, as well as many others. A book which is not sincere throughout will not be liked by intelligent second-grade pupils.

ADA R. POLKINGHORNE

Social studies in the intermediate grades.—This volume[2] adds to our slowly growing supply of social-studies materials a usable book for intermediate grades. The authors have so well stated their essential conceptions underlying the building of a program for the social studies in the grades that a quotation will serve to indicate the general plan into which the book is intended to fit.

> A program that is the outcome of such considerations must be one in which fundamental understandings take precedence over fact as fact, which stresses change and development rather than exact, detailed pictures of any certain area or areas in time or place, which seeks to make pupils conscious of the story of human development as a story of the struggle of individuals or of groups with forces or factors in their environment, and which reveals to pupils that the present lies in the stream of that development and of that struggle and that the future is dependent upon the part they themselves take in that struggle [p. v.].

---

[1] C. E. Turner, Alice L. Beckwith, and Nell Josephine Morgan, *The Joy Family.* Boston: D. C Heath & Co., 1936. Pp. viii+130. $0.50.

[2] Herbert B. Bruner and C Mabel Smith, *Social Studies:* Intermediate Grades, Book I. New York: Charles E. Merrill Co., 1936. Pp. viii+440. $0.96.

In all major particulars the text of the book exemplifies these principles. Opinions will probably differ concerning the points to which exception is taken in this review, but the suggestions offered do not detract from the usefulness of the volume in the hands of the skilful teacher.

The authors have chosen for the intermediate-grade books "eleven significant aspects of living," four of which are presented in Book I· "The Story of Agriculture," "The Story of Fire," "The Story of the Sea," and "The Story of Writing." Each of these is treated as a unit having four to six subdivisions called sections. The general plan of each unit is to open with a conversational section tying up to the present. Then, with this introduction into modern times as a setting of the problem, the succeeding sections tell a developmental story from early beginnings to the present. The book would gain immeasurably if these opening conversations had been curtailed or omitted entirely and the systematic presentation of the evolution of the selected human achievement had been begun immediately. Of the four units, "The Story of the Sea" is the least well organized because of the shifting of emphasis among ships, sailor nations, and trading in early, ancient, medieval, and modern times. It is a little complicated to follow as a story of development! It might gain much if it had been presented only from the standpoint of improvement of water transportation, with the stress on the evolution of ships, or from a viewpoint of how men learned to trade overseas.

With the exception of the conversational introductory sections, the materials are exceedingly well written. The language is simple but vigorous enough to describe interestingly ideas and events which are often complicated. The book may be used in Grades V, VI, or VII, provided the conversational sections are omitted. Irrelevant details have for the most part been carefully avoided. Each section is divided into shorter contributory understandings, at the end of which are exercises directed to the pupil: questions of review and forward-looking intent, reading references, activities, and occasionally additional factual materials. The inclusion of some device to aid in keeping the evolution idea as a progressive story would be of great service to most teachers.

The book is well illustrated with many large photographs, drawings, and maps, to which references are incorporated in the text. The printing and the page arrangement are excellent.

In carrying out one of the implied objectives in their social-studies program, namely, making a pupil feel that his present is part of the past but equally a part of the future, the authors have included a few excellent sections, such as that on "Our New Food Problem," in which the present and the possible future effects of machines on employment are briefly and fairly portrayed. So, too, at the end of a section on modern heating there are forward-looking paragraphs beginning, "Perhaps by the time your children are in school. . . ." Other such discussions are brief and scattered, partly because of the nature of the material However, too often is an impression left that the present stage of development of the selected achievement is the ultimate stage. Granted that a certain responsibility in imparting attitudes and conceptions belongs to the teacher of social studies and granted that many of the desired understandings which are to be the final outcome of a social-studies course are built up through proper guidance and may not of necessity appear in written materials, nevertheless it seems important that pioneering projects, such as textbooks in social studies still are, should consistently guide points of view.

In parts of the story dealing with man's experiences before written history or with the unrecorded happenings afterwards, the authors have not been consistent. It is of course awkward to be repeatedly prefacing paragraphs with "perhaps," "probably," "it may have been," "suppose," "we do not know exactly," "it could have happened," and like expressions, as is carefully done in much of the material dealing with early times, but in too many places blanket statements are made which violate historical probability and common sense. These create the impression that people in general suddenly realized their need of invention, discovery, or improvement and then definitely set about to fulfil their requirements. Such statements as the following, even taken in their context, give little credit to the slow, many times accidental, improvements, inventions, and discoveries made by individuals who frequently met little approval and reluctant acceptance by their fellow-men.

> A little more than one hundred years ago, people became interested in the kinds of tools used by the workers. Better tools were given to the carpenters, the masons, the cloth-makers, the miners [p. 110].
>
> "The sailors need roads, too," said the road-builders . . . . "We must make roads through the seas for the sailors." So other road-builders made roads over the seas [pp. 325–26].
>
> After a while, people saw that they needed better ways of exchanging ideas than just by sounds and signs. . . . . They wanted to talk; so they invented a way to do it [p. 351].
>
> When the pictures were always made in the same way and always read in the same way, they became picture writing [p. 364].

It is to be hoped that the forthcoming books of the series will embody and develop the many excellencies of the first volume.

RUTH R. WATSON

The world in review.—A survey of European civilization, often called "world-history," has taken a conspicuous place in the curriculum during the past twenty years. Occasionally three years have been allocated to the survey; more often two years; or, when administrators desire to economize time, one year. The two-year treatment implies more ruthless elimination of facts and topics than we have usually been willing to make; the one-year course, covering nearly six thousand years of recorded history, imposes an impossible strain on both organization and teaching. Mere going through a textbook, "covering the ground," is not teaching. Full detail, comparison, contrast, unhurried attention to the relations between past and present are necessary if any study of history is to be worth the time spent on it.

Story of Nations[1] makes no novel contribution to the selection and organization of the facts and topics of world-history, though it lives up to best current practice. Its 680 pages—large, double-column pages—of text are divided into 76 chapters, which are grouped into 20 "parts," the titles of which present a rough sketch of world-development. The account is first chronological; then, when possible, national. Twenty-six pages are devoted to early man; 268 pages to the ancient and medieval worlds; two to seven chapters each to the British, French, Germans, Russians, Spanish, Italians, Dutch and Belgians, Scandinavians, Japanese, and Chinese in the modern times; and 76 pages at the end to "Problems of the Modern World." Thus, the volume is, save for the omission of the Americas, truly a world-history. It also finds space for attention to art, literature, music, and to major achievements, geographical factors and economic development are not neglected. As a whole, the account is well balanced and is in accord with the broad concept of history current in the present day.

In its presentation the book achieves distinction. The narrative style is excellent; the illustrations are numerous, carefully selected, and effectively used. The black and white pictorial maps are attractive, but some of them are too elaborate and complicated for easy learning. Two colored maps are given at the back of the book. Overviews, boldface headings, summaries, self-tests, carefully selected readings, occasional graphs, and a double-page chart showing "The Shifting Pattern of Nations" contribute to the usefulness of the book in learning and teaching.

Differences of opinion about details or even about topics included or omitted are always possible, and no rapid survey can be entirely accurate. On the whole, however, it must be said that, if the schools are to use a one-volume history of western civilization in which the major developments are all represented, it is not likely that a much better book can be secured than the intelligent work of these three Californian collaborators. As the basis for a two-year course it should be excellent; as the substance of a one-year dash down the ages it fills excellently a very bad prescription.

ERLING M. HUNT

TEACHERS COLLEGE, COLUMBIA UNIVERSITY

CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY AND PRACTICE

BAGLEY, WILLIAM C. *A Century of the Universal School* The Kappa Delta Pi Lecture Series. New York: Macmillan Co , 1937. Pp. xvi+86 $1.00.

BODE, BOYD H. *Democracy as a Way of Life.* The Kappa Delta Pi Lecture Series. New York: Macmillan Co., 1937. Pp xiv+114 $1 25.

Education against Propaganda: Developing Skill in the Use of the Sources of

---

[1] Lester B. Rogers, Fay Adams, and Walker Brown, *Story of Nations* New York· Henry Holt & Co , 1936 (complete edition). Pp x+704. $2.12.

Information about Public Affairs. Elmer Ellis (editor). Seventh Yearbook of the National Council for the Social Studies. Cambridge, Massachusetts: National Council for the Social Studies (Lawrence Hall, Harvard University), 1937. Pp. vi+182. $2.00.

Library Trends: Papers Presented before the Library Institute at the University of Chicago, August 3–15, 1936. Edited with an Introduction by Louis R. Wilson. Chicago: University of Chicago Press, 1937. Pp. xvi+388. $2.00.

Mann, Mary Peabody. *Life of Horace Mann.* (Centennial edition, in facsimile.) Washington: National Education Association of the United States, 1937. Pp. xii+610.

Norton, John K., and Norton, Margaret Alltucker. *Wealth, Children, and Education.* School Administration Series. New York: Teachers College, Columbia University, 1937. Pp. xviii+100. $2.00.

Tidyman, Willard F. *Directing Learning through Class Management.* New York: Farrar & Rinehart, Inc., 1937. Pp. viii+540. $2.50.

Wexberg, Erwin, M.D., with Henry E. Fritsch. *Our Children in a Changing World:* An Outline of Practical Guidance. New York: Macmillan Co., 1937. Pp. xii+232. $2.00.

Wynne, John P. *The Teacher and the Curriculum.* New York: Prentice-Hall, Inc., 1937. Pp. xxii+440. $2.50.

BOOKS PRIMARILY FOR ELEMENTARY-SCHOOL TEACHERS AND PUPILS

Bardwell, R. W., Mabie, Ethel, and Tressler, J. C. *"Elementary English in Action" Practice Book:* Grade III, pp. 80; Grade IV, pp. 80; Grade V, pp. 80; Grade VI, pp. 80. Boston: D. C. Heath & Co., 1936. $0.24 each.

Clark, John R., Otis, Arthur S., and Hatton, Caroline. *Modern-School Arithmetic:* Third Grade, pp. xii+274; Fourth Grade, pp. xii+258. Yonkers-on-Hudson, New York: World Book Co., 1937 (new edition). $0.72 each.

Junior English in Action: Book I, pp. xiv+402, $1.00; Book II, pp. xvi+448, $1.08, by J. C. Tressler and Marguerite B. Shelmadine; Book III, pp. xvi+474, $1.16, by J. C. Tressler. Boston: D. C. Heath & Co., 1937 (revised edition).

Logasa, Hannah. *Biography in Collections:* Suitable for Junior and Senior High Schools. New York: H. W. Wilson Co., 1937 (revised and enlarged). Pp. 132. $1.25.

Middlebrook, Pearl H. *A Teacher's Guide to United States and Canada.* Newark, New Jersey: Silver Burdett Co., 1937 (revised). Pp. vi+42. $0.24

Notable Short Stories. Selected and edited by Raymond McFarland. New York Macmillan Co., 1937. Pp. xvi+424. $1.00.

Reynolds, H. Atwood. *The Game-Way to Sports.* New York: A. S. Barnes & Co., 1937. Pp. xiv+210. $2.00.

Sound Driving Practices. Sportsmanlike Driving Series. Washington: American Automobile Association, 1937. Pp. 108.

TIBBELS, AVERIL. *The Circus Comes to School:* A Plan Whereby the Circus Becomes Recreational and Educational. New York: A. S. Barnes & Co., 1937. Pp. xii+242. $2 50.

TIREY, RALPH N., FUQUA, BLANCHE E., and BLACK, MARY D. *The Life-Use Speller:* Grades II through VIII. Philadelphia: John C. Winston Co , 1936. Pp. vi+234. $0.60.

TUSTISON, FRANCIS E *Forests, Trees, and Wood:* Information Units for Students in Woodworking. Peoria, Illinois: Manual Arts Press, 1936. Pp. 96. $0.65.

The Winston Simplified Dictionary for Schools, Shorter Edition. Edited by Thomas Kite Brown, Jr., and William Dodge Lewis. Philadelphia: John C. Winston Co , 1937. Pp. x+630. $0 96.

PUBLICATIONS OF THE UNITED STATES OFFICE OF EDUCATION AND OTHER MATERIAL IN PAMPHLET FORM

ARNETT, TREVOR. *Observations on the Financial Condition of Colleges and Universities in the United States, with Special Reference to the Effect of Current Interest Rates on Endowment Income.* Occasional Papers, No 9. New York: General Education Board (49 West Forty-ninth Street), 1937. Pp. 26.

CORNELL, ETHEL L. *The Variability of Children of Different Ages and Its Relation to School Classification and Grouping.* Educational Research Studies, 1937, No. 1. University of the State of New York Bulletin No. 1101 Albany, New York: University of the State of New York, 1936. Pp. 98

Education for Democracy; A Radio Program and Study Guide Based upon the Report: "The Unique Function of Education in American Democracy" Washington: Educational Policies Commission of the National Education Association, 1937. Pp. 22.

Educational Sociology. Review of Educational Research, Vol. VII, No. 1. Washington: American Educational Research Association of the National Education Association, 1937. Pp. 112.

EURICH, ALVIN C., and WERT, JAMES E. *Applicants for Federal Aid at Minnesota Colleges.* Minneapolis, Minnesota. University of Minnesota, 1937. Pp. iv+56.

FENWICK, CHARLES G. *A Primer of Peace.* Washington: Catholic Association for International Peace, 1937 Pp 58. $0.25.

FENWICK, CHARLES G., and INTERNATIONAL LAW AND ORGANIZATION COMMITTEE. *Arbitration and the World Court.* Pamphlet No. 23 Washington. Catholic Association for International Peace, 1937. Pp 46. $0.10.

Functions of Secondary Education. Report of the Committee on the Orientation of Secondary Education. Bulletin of the Department of Secondary-School Principals, No. 64. Chicago: Department of Secondary-School Principals of the National Education Association (5835 Kimbark Avenue), 1937. Pp. 266. $1.10.

"Governors' Messages." Compiled by the Research Division of the National

Education Association. Washington: National Education Association, 1937. Pp 44 (mimeographed).

Hansen, George H. *A Regional Redistricting Plan for the State of Utah.* Brigham Young University Studies, No. 5. Provo, Utah: Brigham Young University Press, 1937. Pp. 60.

Let's See. Twenty-second Annual Report of the National Society for the Prevention of Blindness. New York: National Society for the Prevention of Blindness, Inc. (50 West Fiftieth Street), 1936. Pp. 16.

Minnesota Studies in Articulation. Committee on Educational Research, M. E. Haggerty (Chairman). Minneapolis, Minnesota: University of Minnesota, 1937 Pp. viii+128.

1937 Legislative Proposals Affecting Education. State Department of Education Bulletin No. 5 Sacramento, California: State Department of Education, 1937. Pp. iv+74.

Norton, Edward V. *Play Streets and Their Use for Recreational Programs.* New York: A. S. Barnes & Co., 1937. Pp. 78. $1.00.

Otis, Arthur S. Otis Quick-scoring Mental Ability Tests. Yonkers-on-Hudson, New York: World Book Co., 1936 and 1937.

A Papal Peace Mosaic, 1878–1936: Excerpts from the Messages of Popes Leo XIII, Pius X, Benedict XV, and Pius XI. Compiled by Mary Catherine Schaefer. Pamphlet No. 22. Washington: Catholic Association for International Peace, 1936. Pp. 58.

Proceedings and Reports of the John F. Slater Fund for Year Ending June 30, 1936. Washington: John F. Slater Fund (726 Jackson Place, N.W.). Pp. 44.

Recent issues of the Office of Education:

"Digest of Annual Reports of State Boards for Vocational Education to the Office of Education, Division of Vocational Education. Fiscal Year Ended June 30, 1936." Pp. 68 (mimeographed) and statistical and financial tables.

Vocational Education Bulletin No. 187, Home Economics Series No. 20 (1936)—*Home Economics Education Courses:* A Study of Practices in Teacher-training Institutions Reimbursed from Federal Funds for Vocational Education. Pp. viii+102.

Report of the 1936 Conference of California School Superintendents. State Department of Education Bulletin No. 10. Sacramento, California State Department of Education, 1936. Pp. vi+74

Smith, Henry Lester, and Painter, William Isaac. *Bibliography of Literature on Education in Countries Other than the United States of America* Bulletin of the School of Education, Indiana University, Vol. XIII, No. 2 Bloomington, Indiana: Bureau of Co-operative Research, Indiana University School of Education, 1937. Pp. 342. $0.75.

THE ELEMENTARY SCHOOL JOURNAL

VOLUME XXXVII JUNE 1937 NUMBER 10

Educational News and Editorial Comment

THE REORGANIZATION OF EDUCATION IN FRANCE

The present government in France has initiated a number of important educational measures. A law which will go into effect next October will raise the age of compulsory attendance by one year; pupils will thereafter be required to attend school to the age of fourteen. The law also provides for the introduction of courses in handicrafts and of courses preparatory to the vocational training of children. It is now generally believed that the French schools place too great a burden on pupils. A reform in the curriculum and in the time-tables is intended to put an end to this burden. Teachers' salaries, reduced by the Laval government as an emergency measure, have been restored to their former level.

A bill recently introduced into Parliament by the Minister of Education will, if passed, result in a significant reorganization of French secondary education and in drastic changes in the requirements for teaching certificates. The following statement concerning the bill is quoted from the London *Times Educational Supplement*.

> A bill introduced into Parliament by M. Jean Zay, the Minister of National Education, proposes in a large measure to unify the organization of the three

existing forms of secondary education—secondary schools proper, higher elementary schools, and technical schools—and will make important changes in the method of recruiting teachers.

To obtain entry to secondary schools all pupils, whatever their origin, must in future have the *certificat d'études primaires*, which is awarded as result of an examination in elementary schools when pupils have attained the age of twelve. It may, however, be obtained at the age of eleven, and this variation is contemplated as important in practice, many of the brighter children being ready for the examination at that age. As a consequence of the new rule the lowest preparatory classes of the lycées, which are on the verge of secondary education without forming part of it, are to be transformed into elementary schools. The reform may be regarded as a development of the establishment of free education in secondary schools, entry to which will now depend on proof of capacity.

Secondary teaching is to be divided into three sections: classical, modern, and technical. The first year will be one of observation, with a view to orientation; at the end of it the observers will offer advice, but parents will still have the right to decide what line a child shall take. As a precaution against mistakes in premature orientation the programs of the three lines of instruction will be so arranged that it will be possible for a pupil to be transferred from one to another. For this purpose there will be special courses, which may also be used to facilitate the entry into secondary education of "late-comers," who have carried on their instruction in elementary schools to the end, or have been following continuation (*post-scolaires*) courses. It is understood that experiments in orientation will be made at first in a few schools. The final achievement of the secondary-school career is the passing of the examination for the *baccalauréat*. This will continue for pupils in the classical and modern sections; in the technical section the course will continue on its own lines, and there will be no *baccalauréat*.

With regard to teaching qualifications the bill proposes a drastic reform, since it requires that in future all those who are to become teachers in elementary schools shall pass the *baccalauréat* examination. The *brevet supérieur*, which has hitherto been obtained largely by pupils of higher elementary schools and has formed a qualification for teaching in elementary schools, is abolished. The higher elementary school, which exists mainly for the education of ex-elementary school pupils who wish to become teachers, will thus disappear, at least in name, and it seems probable that many of those who would in present conditions attend this type of school will choose the modern side in their secondary education. The normal schools for the professional training of teachers will continue, and their *certificat d'aptitudes professionnelles* will be necessary along with the *baccalauréat*. Masters for secondary schools, besides their university qualifications, will also have professional training.

Elementary-school pupils who wish to continue their education after leaving age may still attend the complementary courses which are attached to many elementary schools. These courses are to be general in character, with, however, initiatory instruction in some profession, regard being had to vocational requirements in the region in which the pupil lives. The *post-scolaire* course will also give theoretical and practical teaching according to regional needs.

STATE AID TO PRIVATE AND SECTARIAN SCHOOLS

Pressure on state legislatures to provide financial aid to private and sectarian schools has been increasing for a number of years. In some instances, as in Ohio, the demand is for direct financial aid in the form of grants to parents who have children in nonpublic schools. In other instances indirect financial aid is sought through legislative enactments which provide free textbooks and free transportation for pupils in both public and nonpublic schools. In order to bring together the facts in this area of legislative policy, the Research Division of the National Education Association has recently prepared a summary statement of the law and the practices of the several states with regard to direct and indirect state aid to private and sectarian schools. The data are presented in four parts: (1) constitutional provisions, judicial decisions, and statutes controlling state aid to private and sectarian schools; (2) provisions with regard to exemptions from taxation of private and sectarian school property; (3) types of state assistance now given to private and sectarian schools or to pupils thereof; and (4) past and present efforts to obtain public funds or other assistance for private and sectarian schools.

The evidence discloses numerous efforts during the past three legislative sessions of the states to secure some form of state aid for nonpublic schools. In Connecticut attempts to secure legislative sanction for assistance have been made from time to time but without success. In 1933 Delaware appropriated five thousand dollars to provide free transportation of pupils attending schools supported by any church or religious society. The courts later declared this act unconstitutional. Maryland enacted two statutes in 1933 which authorized certain counties to provide aid for transportation to any school. One of these statutes seems never to have been applied; the state superintendent ruled that state and county school funds could not be used. In 1935, however, another statute authorized for the same purpose the use of license fees from the sale of alcoholic beverages. In the same year the governor vetoed a bill which authorized the transportation of private school pupils in the city of Baltimore. Massachusetts in 1936 enacted a statute providing transportation for pupils attending private elementary and secondary schools not operated for profit. In 1932 Michigan failed to pass a bill providing for the appropriation to private and parochial schools of part of the state primary interest money. Two years later a bill introduced into the legislature of Minnesota provided for the distribution of income from the permanent school fund and from a one-mill tax on the basis of average daily attendance in public, private, and parochial schools. The proposal failed. In 1933–34 and again in 1935–36 a bill was introduced into the Ohio legislature which provided for the distribution of three million dollars to free tuition schools. Somewhat earlier Louisiana enacted a law by which books and supplies are furnished free to pupils in nonpublic schools. Revenues from the state severance tax fund are used for this purpose. This statute has been held constitutional by the Supreme Court of the United States.

At the time the Research Division of the National Education Association prepared the summary on this subject, a number of bills to provide state aid to private and sectarian schools were pending in state legislatures. In four states—Connecticut, New York, Ohio, and Pennsylvania—the bills provided for some form of direct state aid. Under the proposed law in Connecticut, town and city boards of education would be authorized to donate $2.25 for each registered child in private or parochial schools, the money to be used for the purchase of books and supplies. The New York bill authorized cities and other political subdivisions to give aid on the basis of attendance at private and sectarian schools not operated for profit and conforming to state standards. In Ohio the bill provided for the distribution of three and one-half million dollars to pay parents with children in nonpublic schools at the rate of ten cents a day for elementary-school and fifteen cents a day for secondary-school attendance. The Pennsylvania bill authorized the classification of sectarian schools and the appropriation of funds to those rendering educational services. In three states—California, Ohio, and Oregon—bills provided for free textbooks for pupils in private or sectarian schools. Bills in four states—California, Maryland, New Jersey, and

Ohio—provided free transportation for pupils attending nonpublic schools.

It is evident that these widespread efforts to secure either direct or indirect aid to private and sectarian schools raise a fundamental problem of social and educational policy. State aid to schools not under public control was generally abandoned in this country many decades ago. Before the present well-established policy is given up and return made to an earlier one, the practical outcomes of the older policy should be assayed with care. Those who are familiar with the history of state aid to private and sectarian schools in this country will look with many misgivings on these recent efforts to revive the practice.

THE SUPREME COURT OF THE UNITED STATES INTERPRETS TEACHER-TENURE LEGISLATION

In a recent decision[1] the Supreme Court of the United States held that state legislation guaranteeing permanent tenure for teachers is merely "a regulation of the conduct of the board" and that it in no way creates a contractual status between the state and the teacher. In brief, the facts of the case are as follows: In 1909 the legislature of New Jersey enacted a statute which provided permanent tenure for teachers. Under the terms of the statute, "no principal or teacher shall be dismissed or subjected to reduction of salary . . . . except for inefficiency, incapacity, conduct unbecoming a teacher, or other just cause." A later statute, enacted in 1933, authorizes school boards to fix and determine salaries "notwithstanding any such person be under tenure," forbids discretion between individuals in the same class of service, and sets a minimum below which boards may not go in the reduction of salaries. Acting under the authority of this statute, the Board of Education of the Town of West New York adopted a resolution reducing salaries for the school year 1933–34 by a percentage of the existing salaries graded upwards in steps as the salaries increased in amount. A number of principals and teachers sought to have the action of the board set aside on the ground that the act of 1909 conferred on teachers on tenure a contractual status indefinite in duration which the legislature was powerless to alter or to authorize boards of education to alter. This contention the United States Supreme Court refused to sustain. The decision of the court is of such importance that we feel justified in quoting it at some length.

---

[1] *Phelps v. Board of Education of Town of West New York*, 57 S.Ct 483

> This court is not bound by the decision of a state court as to the existence and terms of a contract, the obligation of which is asserted to be impaired, but where a statute is claimed to create a contractual right we give weight to the construction of the statute by the courts of the state. Here those courts have concurred in holding that the act of 1909 did not amount to a legislative contract with the teachers of the state and did not become a term of the contracts entered into with employees by boards of education. Unless these views are palpably erroneous, we should accept them.
>
> It appears from a stipulation of facts submitted in lieu of evidence that after a teacher has served in a school district under yearly contracts for three years it has not been customary to enter into further formal contracts with such teacher From time to time, however, promotions were granted and salary raised for the ensuing year by action of the board. In the case of many of the appellants there have been several such increases in salary.
>
> Although after the expiration of the first three years of service the employee continued in his then position and at his then compensation unless and until promoted or given an increase in salary for a succeeding year, we find nothing in the record to indicate that the board was bound by contract with the teacher for more than the current year. The employee assumed no binding obligation to remain in service beyond that term. Although the act of 1909 prohibited the board, a creature of the state, from reducing the teacher's salary or discharging him without cause, we agree with the courts below that this was but a regulation of the conduct of the board and not a term of a continuing contract of indefinite duration with the individual teacher.
>
> The resolution of June 23, 1933, grouped the existing salaries paid by the board into six classes, the lowest of which comprised salaries between $1,200 and $1,999; and the highest included salaries ranging between $4,000 and $5,600. The reduction in the lowest class for the coming year was 10 per cent; that in the highest class 15 per cent. Salaries in the intermediate classes were reduced 11, 12, 13, and 14 per cent. It resulted that in some instances a teacher receiving the lowest salary in a given bracket would have his compensation reduced to a figure lower than the reduced compensation of one receiving the highest salary in the next lower bracket. From this circumstance it is argued that the board's action arbitrarily discriminated between the employees and so denied them the equal protection of the laws guaranteed by the Fourteenth Amendment.
>
> We think it was reasonable and proper that the teachers employed by the board should be divided into classes for the application of the percentage reduction. All in a given class were treated alike. Incidental individual inequality resulting in some instances from the operation of the plan does not condemn it

as an unreasonable or arbitrary method of dealing with the problem of general salary reductions or deny the equality guaranteed by the Fourteenth Amendment.

Judgments affirmed.

A HELPFUL GUIDE FOR RURAL TEACHERS IN THE KEEPING OF PUPIL RECORDS

There is, of course, general recognition of the need for keeping records of the basic facts about pupils as a means of guiding them in their growth and development. To date, practically all the publications describing record systems presuppose clerical help, the supervision of specialists, and teachers with some skill in personnel work. A recent pamphlet entitled *Every Teacher's Records*, prepared by Ruth Strang and published by Teachers College, Columbia University, is of a different kind. It is designed primarily for teachers in one- and two-room rural schools; it grew out of practical experience with rural teachers in Breathitt County, Kentucky. To quote from the Preface: "The records recommended in this pamphlet are a simple natural type. They include sources of information available to every teacher; they do not presuppose specialized skills or knowledge; they recognize the limitations of the present, the while they look forward to a more ideal condition."

Chapter i deals with "The Teacher's Task." Chapter ii is devoted to a discussion of "Records Which Help Teachers To Understand Individual Children." In the second chapter attention is devoted to the following topics: "School Record," "Autobiography," "Indications of Capacity To Learn," "Samples of Pupils' Work and Records of Activities," "Reports of Interviews with Parent or Pupil," "Records of Observations of Pupils in Natural Situations," "Records of Physical and Medical Examinations," "Records of Group Accomplishment," and "Periodic Summary of Cumulative Details."

INFLUENCING THE SOCIAL ATTITUDES OF CHILDREN

Purdue University has recently published a bulletin which bears the title *Further Studies in Attitudes*, Series II. The bulletin is a valuable contribution to an understanding of the possibility of influencing attitudes by a definite educational content and procedure. The evidence presented is in line with other investigations which justify the "tentative generalization that attitudes can be rather readily shifted." The three parts of the bulletin deal, respectively, with experimentation in shifting attitudes, surveys and relation studies, and construction and evaluation of measuring devices.

Two of the experiments in the shifting of attitudes are of special significance. The first experiment, conducted by Sister M. Fridiana Peters and Sister M. Rosanna Peters, under the general supervision of Professor H. H. Remmers, undertook to measure the influence of student self-government on children's attitudes toward law. For the purpose of the experiment two groups of children were used, both groups having substantially the same social and economic backgrounds. The experimental group (Group I) was drawn from a school which operated under the school-city type of organization. The school city was organized as a miniature city paralleling the municipal unit in which the school was located. Pupils in Group II (nonexperimental) came from schools in which the school-city type of organization did not exist. The results of the experiment are summarized as follows:

> The investigation crystallized the following points:
>
> *a*) The correlation between the intelligence scores and scores on attitudes towards law was .001 ± .04, agreeing with the findings of other investigators as to the absence of relationship between intelligence and law observance.
>
> *b*) The pupils under the influence of self-government showed a much more favorable attitude toward law observance than the pupils not having self-government. The value of the critical ratio was 9.76, which warrants the conclusion that attitudes can be developed by direct and indirect ways on the part of the school. Incidentally, this part of the study reveals that in the presence of like elements there is a transfer of training.
>
> *c*) The pupils of Group I scored high on the scale measuring attitudes toward pupil self-government. The mean was found to be 9.96 ± .036 (highest possible score is 11.4).
>
> *d*) The comparison between the attitude toward pupil self-government of the boys and girls of Group I showed that the boys are more favorable to the institution than are the girls.
>
> *e*) In the experimental and in the nonexperimental group the girls scored higher in attitude towards law observance than the boys. The critical ratio was found to be 1.82 for Group I; .827 for Group II.
>
> *f*) The intergrade comparison showed that as children grow older they become less conforming to pressure imposed by law.

> g) The relationship between the attitude of parents and children towards pupil self-government was calculated by the Pearson product-moment coefficient of correlation, which yielded a correlation of .98 ± .004. The result would seem to indicate that the influence of pupil self-government extends beyond the realm of school situation.

Professor Remmers comments on this experiment as follows:

> At the present juncture, when democratic forms of government have been repudiated by a number of civilized nations, evidence of the kind presented in this study concerning the effects of a democratic school organization is of much more than academic interest. The fact that pupils in the upper three elementary grades when operating under pupil self-government are so definitely more favorable to actual legal decisions than children not experiencing this type of self-government contains much food for reflection for those concerned with the broader social implications of education.

The second experiment, by Richard M. Bateman and H. H. Remmers, undertook to determine whether the attitudes of high-school pupils toward social topics could be shifted in various directions and to measure the amount of the shift if any occurred. The conclusions drawn from the experiment are summarized as follows:

> The results from the experiments show statistically significant differences in the attitude shifts of the social-science pupils participating in three of the four experiments—the tests on social insurance, capital punishment, and labor unions. The attitude shifts of the pupils were in the direction planned for in the original objectives of the experiment.
>
> *Divorce.*—The experiment for divorce, as set up, had no objective shift in mind. Regular teaching methods and classroom procedure were followed in this experiment, and both favorable and unfavorable material of almost equal amounts was given to the students. The results show that no attitude shift of statistical significance took place in this experiment. The spread of the measures as indicated by a comparison of pre- and post-standard deviations also shows no statistically significant difference.
>
> *Social insurance.*—The experiment on social insurance showed an initially favorable attitude of the pupils toward the subject. The objective of the experiment as set up by the authors was to shift this pretest attitude to a still more favorable one.
>
> The results indicate that the experimental objective was attained. There was a smaller spread in the measures and a statistically significant change also in the spread of the measures in the boys' group and for the total in this experiment as measured by the standard deviations of the pre- and post-tests. The change in variability of the girls, although not statistically significant in this experiment, shows a tendency toward a significant difference.

The results in the experiment on social insurance indicate that students have a tendency to shift their attitude toward this social subject from a favorable to a more favorable attitude and to become more alike in this attitude when a suitable amount of favorable influencing material is brought to bear on the subject as studied.

Capital punishment.—The experiment on capital punishment was set up with the objective in mind of shifting the unfavorable pretest attitude of the experimental social studies group to a more favorable attitude toward the subject. The results . . . . indicate that this shift in attitude took place.

There was a statistically significant difference in the means for the boys and the total in this experiment, as a comparison of the pre- and post-tests shows. There was no significant difference in the standard deviation for boys, girls, or total on the pre- and post-tests.

The results in this experiment indicate that students have a general tendency to shift their attitude toward capital punishment from unfavorable to a more favorable one if they are subjected to enough favorable influencing material. The results show the boys have more of a tendency to shift their attitude than do the girls; however, the sampling of boys was twice as large as the sampling of girls, and this small sampling of girls is not a representative enough group to indicate what the general tendency of girls would be in the same situation.

Labor unions.—A pretest on labor unions indicated that the experimental groups had a favorable attitude toward the subject. Unfavorable material was then submitted to the groups, and the results show a statistically significant attitude shift of the students. There was also a statistically significant attitude shift of the students in the standard deviations on the pre- and post-test comparisons.

The results in the experiment on labor unions indicate that the attitude of groups of social-science students can be shifted by submitting material to the students which will emphasize trends or attitudes in the direction, favorable or unfavorable, that the instructor desires.

These experiments showing that by predetermined conditioning methods the attitudes of pupils in social-science classes can be shifted practically at will carry grave and important educational implications. The social-civic attitudes of the high-school pupils of today will determine to a very large degree the kind of social and political behavior of the adult citizens of tomorrow. Those charged with the construction of curriculums and especially teachers of the social studies carry a responsibility to a democratic form of government not easily overestimated.

CONFERENCE OF ADMINISTRATIVE OFFICERS OF PUBLIC AND PRIVATE SCHOOLS

During the week of July 19–23, 1937, a conference of administrative officers of public and private schools will be held by the Department of Education of the University of Chicago in the Club

Room of Judson Court, College Residence Halls for Men, for the discussion of important problems in school organization, administration, and supervision. The morning programs will consist of lectures by members of the Department of Education and visiting instructors and the afternoon programs of separate round-table discussions for superintendents and principals. Programs of the conference will be mailed to anyone applying to Professor W. C. Reavis, Department of Education, University of Chicago.

Room and board will be provided, to the extent of the available capacity, in Judson Court for the week, Monday to Friday, for sixteen dollars. Reservations may be made through William J. Mather, Bursar of the University of Chicago.

The conference is open without fee to students registered in the summer quarter and to administrative officers of public and private schools who desire to attend. The general theme of the institute, for which the complete program is given below, is "Improvement of Instruction."

Monday, July 19

—THROUGH THE MOBILIZATION OF THE POTENTIAL ABILITIES OF THE ENTIRE TEACHING STAFF

"The School Principal and Modern Supervision," Paul B. Jacobson, Principal, University High School; Assistant Professor of Education; Assistant Dean of the College, University of Chicago

"Faculty Mobilization for the Improvement of Instruction," Wesley E. Peik, Professor of Education, University of Minnesota

"The Central Office and Modern Supervision," Ben G. Graham, Superintendent of Schools, Pittsburgh, Pennsylvania

Tuesday, July 20

—THROUGH THE IMPROVEMENT OF INSTRUCTIONAL MATERIALS

"The Development of Special Units of Curriculum Material," Charles H. Judd, Professor of Education; Head of the Department of Education, University of Chicago

"The Contribution of the Administrator to the School Curriculum," William C. Reavis, Professor of Education, University of Chicago

"The Enrichment of the Curriculum through the Wider Use of Library Materials," Rollo L. Lyman, Professor of the Teaching of English, University of Chicago

Wednesday, July 21

—THROUGH NEW TYPES OF SUPPLEMENTARY AIDS TO INSTRUCTION

"Use of Pictures, Maps, and Graphic Material in Instruction," Edith P. Parker, Assistant Professor of the Teaching of Geography, University of Chicago

"Use of Guide Sheets and Workbooks in Social Studies," Rolla M. Tryon, Professor of the Teaching of History, University of Chicago

"Use of Motion-Picture and Sound Films" (illustrated), Frank N. Freeman, Professor of Educational Psychology, University of Chicago

Wednesday Evening, July 21

Program arranged by the Educational Policies Commission of the American Association of School Administrators. Principal address by Charles B. Glenn, Superintendent of Schools, Birmingham, Alabama; President, American Association of School Administrators

Thursday, July 22

—THROUGH THE EFFICIENT SELECTION AND USE OF EQUIPMENT AND SUPPLIES

"Improved Methods of Selecting Equipment and Supplies," Robert W. Hibbert, Director, Books-Supplies-Equipment, Department of Instruction, St. Louis Public Schools, St. Louis, Missouri

"Stimulating the Teaching Staff To Make a Better Utilization of Equipment and Supplies," John A. True, Superintendent of Schools, Council Bluffs, Iowa

"Efficient Methods of Administering Supplies in City-School Systems," Nelson B. Henry, Associate Professor of Education, University of Chicago

Friday, July 23

—THROUGH THE REFINED MEASUREMENT OF PUPIL *ABILITY AND ACHIEVEMENT*

"A Program of Refined Measurement for City-School Systems," Paul T. Rankin, Supervising Director, Department of Curriculum and Research, Detroit Public Schools, Detroit, Michigan

"Measurement in Progressive Secondary Schools," Ralph W. Tyler, Professor of Education, Ohio State University

"Clinical Study of Pupils with Learning Disabilities," William S. Gray, Professor of Education; Executive Secretary, Committee on the Preparation of Teachers, University of Chicago

WHO'S WHO IN THIS ISSUE

FREDERICK S. BREED, associate professor of education at the University of Chicago. JOHN A. NIETZ, associate professor of education at the University of Pittsburgh. HARRY L. TATE, principal of the Eli Whitney School, Chicago, Illinois. ARVID J. BURKE, director of public information of the New York State Teachers Association. CARTER ALEXANDER, library professor at Teachers College, Columbia University. JAMES F. ABEL, chief of the Division of Comparative Education of the United States Office of Education.

GENERALIZATION IN SPELLING

FREDERICK S BREED
University of Chicago

The problem of the transfer of training or the general value of training has had a troublous history in psychology and in education. It is associated with the so-called "disciplinary theory"—a theory which, prior to 1890, enjoyed remarkable prestige in the schools of the United States. With the advent of Herbartianism after 1890 and the publication of experimental results on the transfer of training, the disciplinary theory began to lose ground. Extreme opponents, using such disparaging phrases as "the superstition of general training," seemed bent on the destruction of the theory, but it survived attack and still survives in modified form because we now know, as a result of a long list of painstaking experiments, that one learning situation may affect another either positively or negatively—that is, for better or for worse—and hence exhibit what, with questionable propriety, has been known as transfer.

GENERALIZATION IN SCHOOL SUBJECTS

Although interest in the disciplinary theory as a general method of instruction has declined in recent years, interest in it as a special method has increased. In the subjects of arithmetic and spelling educators are surveying with no little concern the vast number of things to be taught in the schools and are weighing the possibility of economy through the wider use of generalization. Shall each important spelling word and each important number combination be regarded as a special problem in itself? Can some words be taught so as to make the learning of other words easier or unnecessary? Is it necessary to train pupils specifically on each of the one hundred addition combinations, or can fifty-five of them be so taught that *the remaining forty-five will require little or no instruction?* Such is the form in which the problem is confronted at the present time.

DECLINE AND RESTORATION OF THE DISCIPLINARY THEORY

One can better understand the particular status of the theory in spelling after a moment's historical retrospect. Developments in this subject definitely parallel changes of attitude toward the general theory of discipline. Writing of the teaching of spelling rules, Suzzallo remarked in 1911: "It was overdone twenty years ago, the reaction against formal deductive ways of teaching tending to eliminate it completely; now there is a tendency towards its restoration to a restricted place with a much changed emphasis and use" (33:89–90). That is, the deductive methods that held sway prior to 1890 were all but swept out of the schools, taking with them the application of spelling rules, during the ensuing Herbartian reaction and its emphasis on induction. The restricted restoration of rules noted by Suzzallo in 1911 seemed to follow logically from the results of experiments indicating that, while the claims for disciplinary value must be reduced, they must not be reduced to zero.

The period from 1910 to 1920 was one of much discussion, considerable skepticism, and no decisive experimentation. In 1912 Cook reported a study (11) in which he concluded that rules are of little value in spelling, and near the end of the period Horn (17), after reviewing the experiments bearing on the topic, recommended in 1919 that teaching the use of rules be abandoned until justified by more conclusive evidence.

The attitude of educators toward the problem since 1920 is well indicated by Sartorius (31) in a report, appearing in 1931, of the extent to which rules are employed in twenty spellers published after 1920. Her results are as follows (31:28):

Number of Rules	Number of Spellers
0	2
1–10	3
11–19	4
20–29	3
30–39	4
40–48	4
Total	20

From the data presented it may be observed that the authors of spellers disagreed notably with regard to the number of rules to be taught, but only two of the twenty textbooks referred to were absolutely negative in their attitude. Since 1930 there has been a marked revival of interest in this problem, led by Gates and his students. In the half-dozen years since 1930 the contributions of Mendenhall (24) in 1930, Carroll (9, 10) in 1930, Sartorius (31) in 1931, King (19) in 1932, and Watson (37) in 1935 have appeared and finally in 1935 a report of a two-year investigation by Gates himself (14). The studies of this group deal with related aspects of the problem under discussion and, taken as a whole, constitute the most important body of data in regard to it.

THREE SUBSIDIARY PROBLEMS

The problem of generalization in spelling is usually regarded as threefold, embracing the following subsidiary problems:

1. Shall we teach together or separately words having identical phonetic but different orthographic elements? Examples: *their*, *there*.
2. Shall we teach together or separately words having identical phonetic and orthographic elements? Examples: *take*, *lake*.
3. Shall we teach with or without the use of rules words that are spelled in accordance with rules? Examples: *rise*, *rising; shine*, *shining*.

THE TEACHING OF HOMONYMS

Even though the first problem, which relates to the teaching of homonyms, is not always considered a problem of generalization, it may appropriately be regarded as such, for in this problem, as in the other two listed, there is the possibility of transfer through some form of identity in separate words. In the case of homonyms, however, the element of identity is offset by elements of difference; that is, while there is identity in sound, there is difference both in spelling and in meaning.

The experimental studies relating to the teaching of homonyms are contradictory. Pearson (26), on the basis of the results of an investigation made in the Horace Mann School of Teachers College, Columbia University, concluded in 1912 that homonyms are more effectively taught by the "together" method. The study was repeated with the same word lists, tests, and directions in the Montclair, New Jersey, public schools and was completed with essentially the same results. More recently, however, Finkenbinder (13) carefully reviewed the work of Pearson and performed an experiment of his own which led him to the conclusion that homonyms can more economically be taught separately.

To the writer this conflict in results is not altogether surprising in view of the fact that the element of identity, commonly regarded as the vehicle of transfer, is one of sound only, while the two words differ both in meaning and in the important element of spelling. In the light of the experimental results and the results of analysis, it seems not altogether unlikely that the difference between the rival methods of instruction in this case is small if not insignificant. If so, it would of course be a matter of indifference which method of teaching homonyms were used. One might add that it is difficult under any circumstances to regard this problem as one of the major issues in the teaching of spelling when only about sixty pairs of words are involved in the minimal list.

THE GROUPING OF WORDS

The first important experimental study of the grouping problem was made by Wagner (36) in 1912. He used two sixth-grade classes of equal ability, one as a control group and the other as an experimental group, and kept conditions uniform for the two groups except that the two hundred words taught were organized according to similar elements in one case and in random order in the other. The average improvement from initial to final test was 9 per cent greater in the case of the pupils who studied grouped words than in the case of those who studied the words in random order. With these results available, and none more substantial to contradict them, Horn in 1919 concluded "that the time of both the pupils and the teacher will be conserved by regarding each word as an individual problem" (17: 65). He was led to this conclusion partly because, as he suggested, "any advantage which exists for grouping is for immediate, rather than for delayed recall" (17: 65). However, Tidyman and Johnson (34) have since reported an experiment similar to Wagner's in which the method of grouping words yielded superior results to the extent of about 10 per cent, both in immediate and in delayed recall.

Psychological experiments in large number have shown that transfer commonly takes place from one situation to another when the two situations are similar in material or in method. One may go further and add, with Judd, that there is no guaranty of transfer without generalizing the experience,[1] but the development of the generalization, it must be acknowledged, starts with the selection of elements common to the two situations. This fact means at least that grouping of similar words presents an unusual opportunity for generalization. Since the best experiments dealing directly with the problem indicate that such grouping results in profitable generalization on the part of pupils, one is justified in recommending this procedure in the teaching of spelling.

THE USE OF RULES

The most difficult of the three subordinate problems under generalization is reserved for the last. The chief obstacle to the application of spelling rules is conceded to be the unphonetic character of English spelling. Not that English spelling is thoroughly unphonetic. The question is: Is it so unphonetic that attempts at generalization are profitless? In this connection much has been made of the exceptions to rules, the variety of ways in which the sounds constituting a word can be represented by the letters in our alphabet, and so on. Simplified spelling would remove many of these difficulties, but this reform seems a long way off, and spelling must be taught at once.

Mendenhall (24) and Archer (1, 2) have both shown that, regardless of our attitude toward the matter, pupils generalize extensively in spelling, and Carroll (10) has made it clear that bright pupils indulge in this practice more extensively than dull pupils. The principal problem is to find out to what extent, if at all, rules can be used to make such generalization satisfactorily effective. It is generally conceded that rules having wide applicability and no exceptions are the most promising, but it is not conceded that a generalization is worthless if it is not universal.

---

[1] Charles Hubbard Judd, *Psychology of Secondary Education*, pp 414-41. Boston: Ginn & Co., 1927.

The investigation of Sartorius (31) was important because she identified more than a hundred spelling rules and showed their applicability in a typical minimal spelling list. Her study "enables an investigator to select the rules and generalizations which are of possible value" (31 : 57). Indeed, it was used for precisely this purpose by Wheat (38), who selected four spelling rules of wide applicability. As an example one may cite the rule governing the final silent *e* of a word before adding a suffix. Nearly a fourth (23 per cent) of the words in the Sartorius minimal spelling list came under this rule, and less than 1 per cent were found to be exceptions. Wheat's finding precipitates the question: Would it be helpful to use the final *e* rule in learning to spell the 891 words to which it applies? It should be noted that one may concede the helpfulness of rules without conceding a place to them in the teaching of spelling. Rules may be conceded a place, it is soundly argued, only if they make the learning an easier task than teaching without using them.

Inspired by Gates, King (19) obtained experimental data on the ability of elementary-school pupils to apply rules in their study of spelling. On the whole her results did not provide the proponents of rules with much encouragement. Archer's study (1), one of the best performed to date, showed among other things that, after pupils had been taught the root forms of words, they spelled quite as correctly the simple derivatives of these words without previous instructional contact with the derivatives. The positive results of this study are impressive but should be considered side by side with the negative results obtained in cases where generalization went awry. For example, while the pupils achieved much success in spelling "rejecting" after studying "reject," they were not so successful in spelling "deciding."

The last study to be considered is that reported in 1935 by Gates (14). This investigation included two elaborate controlled experiments on the use of rules and the grouping of words. The subjects comprised 3,800 pupils in 106 classes in the Brooklyn public schools. Two conclusions only will be cited:

> 1. The Generalization Method produced greater ability than the Specific Learning Method to spell representative "new" words, that is, words not previously studied in the spelling class, from the same and higher grade levels

The superiority of the Generalization Group in this test was estimated as 6 or 8 per cent.

2. *The Generalization Method* produced greater ability to convert unstudied base forms into derived words by adding the suffixes *s*, *es*, *d*, *ed*, or *ing*, and to write words containing *ei* or *ie* and other common elements like *in* or *tion*. The superiority in the test of applying the specific generalizations which were introduced to the Generalization Group was estimated to be about 9 per cent [14:77–78].

A FINAL WORD

As a result of favorable experimental results, we seem to be on the eve of according greater recognition to rules in the teaching of spelling. The more recent studies seem to indicate that rules will be effective if a limited number are selected with a view to range of applicability, freedom from exceptions, and difficulty of learning; if these rules are inductively developed; and if the children are properly guided in generalizing in new situations. In other words, it seems possible to improve instruction in spelling by a judicious increase of emphasis on rationalization.

BIBLIOGRAPHY

1. ARCHER, CLIFFORD P. *Transfer of Training in Spelling*. University of Iowa Studies in Education, Vol. V, No. 5. Iowa City, Iowa: University of Iowa, 1930.
2. ARCHER, CLIFFORD P. "Saving Time in Spelling Instruction," *Journal of Educational Research*, XX (September, 1929), 122–31.
3. ARCHER, CLIFFORD P. "Shall We Teach Spelling by Rule?" *Elementary English Review*, VII (March, 1930), 61–63.
4. ARPS, G. F. "Attitude as a Determinant in Spelling Efficiency in Immediate and Delayed Recall," *Journal of Educational Psychology*, VI (September, 1915), 409–18.
5. ASHBAUGH, E. J. "Use of Rule in Teaching Spelling" Unpublished Master's thesis, University of Iowa, 1917.
6. BARKER, VILDA M. "The Ability of Children Who Have Had Six Years of Training To Spell Words That Have Not Been Studied." Unpublished Master's thesis, University of Iowa, 1927
7. BROOMELL, GEORGE D "Where and How Phonetic Spelling Should Be Used at Once," *Elementary School Teacher*, VII (March, 1907), 385–89.
8. BROWN, FANNIE WILDER "Learning To Spell—Particularly *ie* and *ei*," *Education*, XXXIV (May, 1914), 582–87.
9. CARROLL, HERBERT A. *Generalization of Bright and Dull Children* Teachers College Contributions to Education, No. 439. New York: Teachers College, Columbia University, 1930.

10. CARROLL, HERBERT A. "Generalization of Bright and Dull Children—A Comparative Study with Special Reference to Spelling," *Journal of Educational Psychology*, XXI (October, 1930), 489–99.

11. COOK, W. A. "Shall We Teach Spelling by Rule?" *Journal of Educational Psychology*, III (June, 1912), 316–25.

12. COOK, W. A., and O'SHEA, M. V. *The Child and His Spelling*. Indianapolis, Indiana: Bobbs-Merrill Co., 1914.

13. FINKENBINDER, E. O. "The Spelling of Homonyms: An Experimental Investigation of Teaching Them," *Pedagogical Seminary*, XXX (September, 1923), 241–51.

14. GATES, ARTHUR I. *Generalization and Transfer in Spelling*. New York: Teachers College, Columbia University, 1935.

15. GATES, ARTHUR I., and CHASE, ESTHER HEMKE. "Methods and Theories of Learning To Spell Tested by Studies of Deaf Children," *Journal of Educational Psychology*, XVII (May, 1926), 289–300.

16. HORN, ERNEST. "The Influence of Past Experiences upon Spelling," *Journal of Educational Research*, XIX (April, 1929), 283–88.

17. HORN, ERNEST. "Principles of Method in Teaching Spelling as Derived from Scientific Investigation," *Fourth Report of the Committee on Economy of Time in Education*, pp. 52–77. Eighteenth Yearbook of the National Society for the Study of Education, Part II. Bloomington, Illinois: Public School Publishing Co., 1919.

18. HORN, ERNEST. "Rationalization of Spelling," *Elementary English Review*, VII (March, 1930), 51–53.

19. KING, LUELLA M. *Learning and Applying Spelling Rules in Grades Three to Eight*. Teachers College Contributions to Education, No. 517. New York: Teachers College, Columbia University, 1932.

20. LESTER, JOHN A. "Teaching Freshmen To Spell," *English Journal*, V (June, 1916), 404–10.

21. LESTER, JOHN A. "Delimitation of the Spelling Problem," *English Journal*, VI (June, 1917), 402–11.

22. LESTER, JOHN A. "A Study of High School Spelling Material," *Journal of Educational Psychology*, XIII (February and March, 1922), 65–74, 152–59.

23. MASTERS, HARRY VICTOR. *A Study of Spelling Errors*. University of Iowa Studies in Education, Vol. IV, No. 4. Iowa City, Iowa: University of Iowa, 1927.

24. MENDENHALL, JAMES E. *An Analysis of Spelling Errors*. New York: Lincoln School of Teachers College, Columbia University, 1930.

25. PEARSON, HENRY C. "The Scientific Study of the Teaching of Spelling," *Journal of Educational Psychology*, II (May, 1911), 241–52.

26. PEARSON, HENRY C. "Experimental Studies in the Teaching of Spelling," *Teachers College Record*, XIII (January, 1912), 35–66.

27. PORTER, BERT O. "Homonyms and Spelling Difficulty." Unpublished Master's thesis, University of Iowa, 1922.

28. PREHM, ERNEST ALBERT. "Grouping Words by Structure and Sounds as Factors in the Teaching of Spelling." Unpublished Master's thesis, University of Iowa, 1929.

29. RICE, J. M. "The Futility of the Spelling Grind," *Forum*, XXIII (April, 1897), 163–72.

30. RODIE, EVERETT E. "Spelling by Rule and Reason," *Grade Teacher*, XLVII (June, 1930), 806.

31. SARTORIUS, INA CRAIG. *Generalization in Spelling.* Teachers College Contributions to Education, No. 472. New York: Teachers College, Columbia University, 1931.

32. SIFERT, EARL R. "A Comparative Study of the Ability of Eighth Grade Children To Spell Studied and Unstudied Words." Unpublished Master's thesis, University of Iowa, 1926.

33. SUZZALLO, HENRY. *The Teaching of Spelling.* Boston: Houghton Mifflin Co., 1913.

34. TIDYMAN, W. F., and JOHNSON, EDITH. "Value of Grouping Words According to Similar Difficulties in Spelling," *Journal of Educational Research*, X (November, 1924), 297–301.

35 TURNER, E. A. "Rules versus Drill in Teaching Spelling," *Journal of Educational Psychology*, III (October, 1912), 460–61.

36. WAGNER, CHARLES A. *An Experimental Study of Grouping by Similarity as a Factor in the Teaching of Spelling.* Doctor's Dissertation, University of Pennsylvania, 1912.

37. WATSON, ALICE E. *Experimental Studies in the Psychology and Pedagogy of Spelling.* Teachers College Contributions to Education, No. 638. New York: Teachers College, Columbia University, 1935.

38. WHEAT, LEONARD B. "Four Spelling Rules," *Elementary School Journal*, XXXII (May, 1932), 697–706.

39. WILCOX, M. J. "The Use of a Rule in Teaching Spelling." Unpublished Master's thesis, University of Iowa, 1917.

HORACE MANN'S IDEAS ON GENERAL METHODS IN EDUCATION

JOHN A. NIETZ
University of Pittsburgh

On June 29 this country celebrates the one hundredth year since Horace Mann was appointed secretary of the newly created Board of Education of Massachusetts. That office then meant the same as the office of superintendent of public instruction or commissioner of education means today in most states. Mann had already attained success in the fields of law and politics and, at the time of his appointment as secretary of the Board of Education, held the office of president of the Massachusetts State Senate; yet he wrote in his personal journal regarding his new appointment, "my sphere of *possible* usefulness would be indefinitely enlarged" (I, 79).[1] No doubt he sensed the part which an active leader could play in that significant period of American educational history.

Horace Mann's greatest fame rests on his achievements as a vigorous and practical educational administrator and leader and not on his influence as an educational theorist, but he made no mean contribution to the development of better practice in the methods of teaching. While his writings, especially his twelve *Annual Reports*, devoted most attention to such administrative matters as school buildings, school committees and their duties, school attendance, school support, school libraries, and school inspection, these writings also contained much pertaining to methods of teaching, both general methods and the teaching of special subjects.

It is the purpose of this article to discuss Mann's ideas on general methods in education as revealed in his writings. Space in a single article does not permit the treatment of his ideas on special methods as well. The term "general methods" will be used to mean those methods of instruction which are applicable not to any one subject in particular but rather to any or all subjects in the common school.

---

[1] The figures in parentheses refer to volume and page numbers in *Life and Works of Horace Mann.* Boston: Lee & Shepard, 1891

Purpose of education.—It is essential to consider Mann's ideas of the purpose of education before his ideas of general method are presented. He viewed education as a broad functional process, effecting a harmonious relation between man—"body, intellect, spirit"—on the one hand and "nature and . . . . the Author of nature" on the other. He viewed such a relation as a system of laws, which, if obeyed, will cause "all the resistless forces of nature [to] become our auxiliaries" (II, 143):

> Now, is it not obvious that a system so stupendously comprehensive, embracing ourselves,—body, intellect, spirit,—as one party, and all the resistless agencies of nature and of the Author of nature, as the other party,—embracing existences which, though not coeval in their beginning, are to be co-eternal in their duration;—is it not obvious that the infinite relations of such a system must be arranged and administered by laws as fixed, as immutable, as eternal, as the Being who created them? . . . .
>
> To know these laws, and to be animated with a disposition voluntarily and lovingly to obey them, is *to be educated.* Not to know them, or not voluntarily and lovingly to observe them, is to be uneducated, or miseducated [V, 59].

Holding these views, Mann naturally favored an education that would develop the individual in as many functional ways or relations as possible. He strongly favored health education and physical development. He wanted to develop individuals who would love truth and seek to "clarify the vision of the intellect to discern it. We want a generation of men above deciding great and eternal principles, upon narrow and selfish grounds" (II, 80). Education must "take the accumulations in knowledge, of almost six thousand years, and . . . . transfer the vast treasure to posterity," but of this accumulation "preserve the good and repudiate the evil" (II, 78). Furthermore, "education must prepare our citizens to become municipal officers, intelligent jurors, honest witnesses, legislators, or competent judges of legislation,—in fine, to fill all the manifold relations of life" (II, 83–84). Finally, "education, alone, can conduct us to that enjoyment which is, at once, best in quality and infinite in quantity" (II, 84).

Importance of the teacher.—Throughout his writings Mann stressed the importance of the teacher in a successful learning situation. He referred to teaching as "the most difficult of all arts, and the profoundest of all sciences" (II, 419–20). Apparently he did not think of methods or any other matter in relation to the learning process without thinking of these as emanating entirely or largely from the teacher. In brief, he held the teacher responsible for successful teaching leadership and, consequently, for successful learning on the part of pupils. This view, so vividly presented throughout his famous *Seventh Annual Report* of 1843, was the chief cause for the bitter controversy between the Boston schoolmasters and Mann. In a personal letter to a Mr. Combe, Mann referred to this matter, in part, as follows: "The very things in the report which made it acceptable to others made it hateful to them [Boston schoolmasters]" (I, 231).

His idea of the importance of the teacher was also expressed in his *Ninth Annual Report* (1845), in which he referred to Pestalozzi's view on the same matter. In part he said:

> It was the opinion of Pestalozzi,—that wisest of schoolmasters,—that the children's want of interest in their studies, in his day, was almost universally referable to a want of skill in those who had charge of them. [Then he quoted Pestalozzi as saying:] ". . . . I would go so far as to lay it down as a rule, that whenever children are inattentive, and apparently take no interest in a lesson, the teacher should always first look to himself for a reason" [IV, 81].

Mental growth.—Mann certainly was not a trained educational psychologist; yet his penetrating observations of how children learn led him to express himself on this matter on several occasions. Several typical references will suffice to reveal his ideas regarding how children learn and grow mentally.

One excellent reference is found in his *Seventh Annual Report* where he discussed the commendable teaching in the Prussian schools. He described at length how the teaching developed thinking. In part, he wrote:

> These lessons consisted of familiar conversations between teacher and pupils, on subjects adapted to the age, capacities, and proficiency of the latter. With the youngest classes, things immediately around them,—the schoolroom, and the materials of which it had been built; its different parts; . . . . the clothes of the pupils, and the materials from which they are made; their food and playthings; the duties of children to animals, to each other, to their parents, neighbors, to the old, to their Maker,—these are specimens of a vast variety of subjects embraced under one or another of the above heads. . . . .
>
> When visiting the schools in Leipsic, I remarked to the superintendent, ... Dr. Vogel, that I did not see on the "Study-Plan" of his schools the title "Exercises in Thinking." His reply was, "No; for I consider it a *sin* in any teacher not to lead his pupils to think in regard to all subjects he teaches" [III, 337–38].

Mann summarized the results of such teaching, in part, as follows:

> In the meantime, the children are delighted. Their perceptive powers are exercised. Their reflecting faculties are developed. Their moral sentiments are cultivated. All the attributes of the mind within find answering qualities in the world without [III, 342].

In other words, Mann concluded that developing the ability to think must begin with the child's near-at-hand experiences and these experiences be gradually expanded and enriched by relating them to those more remote and complex.

In his *Ninth Annual Report* he discussed the development of thinking rather than the mere training of memory when he explained and defended the inductive method. He began by saying that ever since the time of Pestalozzi nearly all leading educators of Europe and America had been favoring the "true and philosophical method of instruction." He continued:

> With one consent, their decision is in favor of the *exhibitory*, *explanatory*, and *inductive* method. This method is the opposite of the *dogmatic*. The latter method consists in laying down abstract rules, formulas, or theorems, in a positive, authoritative manner, and requiring the forms of words in which the abstractions are expressed to be committed to memory. Of course, the principle embodied in these forms of words is to be received by the learner whether he understands it or not, and without any inquiry on his part whether it be true or false [IV, 95–96].

He further explained how the inductive method takes the opposite approach and concluded:

> In the one case, the learner is expected to receive blindly what is dictated to him; while the other method exhibits, explains, illustrates, exemplifies, and educes, and then submits the whole to the learner's intelligence, to be received or discarded [IV, 97].

The last reference on how learning takes place which will be mentioned here is taken from his baccalaureate address delivered at Antioch College in 1859, which was one of Mann's last important speeches and which probably expressed his most mature thinking on educational problems. He referred to "two grand laws respecting mind-growth, more important than the laws of Kepler" (V, 516). The first he called the "law of symmetry":

> The faculties should be developed in proportion. Their circumference should be round, not polygonal; they should be balanced, not tilted. Every faculty is firmer set when it receives support from *all* the others. Every faculty acts with

> indefinitely more vigor when the other faculties sympathize and co-operate. . . . . A man who is Daniel Lambert on one side, weighing seven hundred pounds, and Calvin Edson, weighing only forty pounds, on the other,—is not more deformed than a man who is all intellect and no sentiment, or all sentiment and no intellect [V, 516–17].

The next law he mentioned is what we now call the psychological "law of exercise" or "self-activity." He said in part:

> The next law is as important as the first. It is that all our faculties grow in power and in skill by use, and that they dwarf in both by non-use. By growth, I mean that they pass out of one state into another, as a grain of corn grows or passes from the embryo germ to the plumule, from the plumule to the stalk, to the flowering tassel, to the bountiful ear [V, 518].

Recognition of individual differences.—In recent years much has been said and written concerning individual differences and needs. These too were recognized by Horace Mann. In his *First Annual Report* (1837), when he was still inexperienced in the educational field, he wrote:

> In its absolute perfection, it [teaching] would involve a complete knowledge of the whole being to be taught, and of the precise manner in which every possible application would affect it; that is, a complete knowledge of all the powers and capacities of the individual, with their exact proportions and relations to each other, and a knowledge how, at any hour or moment, to select and apply, from a universe of means, the one then exactly apposite to its ever-changing condition [II, 420].

In describing the good Prussian schools in his *Seventh Annual Report* (1843), he referred to certain lessons consisting of "familiar conversations between teacher and pupils, on subjects adapted to the age, capacities, and proficiency of the latter" (III, 337). His language in speaking of individual differences became even more marked in an article in the *Common School Journal* written in 1843: "The difference between men in regard to their bodily vigor, fleetness, dexterity, is great, but it is as nothing compared with the differences in their intellectual strength and sagacity,—in their celerity and grasp of thought" (V, 65).

Means of motivation.—Mann wrote much concerning the importance and the means of motivating learning. Although he rarely used the word "motivation," his discussions clearly indicated what he meant. Concerning the importance of motivation, he said: "If then, in learning, all wills and desires, all costs, labors, efforts, of others, are dependent, at least, upon the will of the learner, the first requisite is the existence in his mind of a desire to learn" (II, 517).

Numerous *means* were mentioned by Mann through which learning could be motivated. One suggestion concerned itself with the order in which materials are presented to the pupils. He favored beginning with the simpler elements. This procedure he considered the "natural order . . . . in the development of the faculties" (II, 66). In this regard he said:

> It seems to me that one of the greatest errors in education, at the present time, is the desire and ambition, at single lessons, to teach complex truths, whole systems, doctrines, theorems, which years of analysis are scarcely sufficient to unfold; instead of commencing with simple elements, and then rising, by gradations, to combined results. All is administered in a mass. We strive to introduce knowledge into the child's mind, the great end first (II, 69).

He went on to show that the wrong order of presentation would lead only to rote learning, not real learning. The "scientific order" would give to pupils "from the beginning, distinct and luminous ideas" (III, 254).

He pointed out in his *Ninth Annual Report* (1845) that the natural way is the attractive way. He argued:

> Is not the course of Nature, then,—which is a lesson given by the Creator himself,—full of instruction and wisdom in regard to the school-motives which should be brought to bear upon children? First, in order to win attention, the objects of knowledge should be made attractive, as Nature, by bestowing upon her objects the pleasing qualities of form and color, of motion and sound, makes them attractive. As the powers of perception precede the powers of reasoning, in the order of development, the sensible qualities of things should first be presented to the learner [IV, 79].

Another suggestion made by Mann for motivating work by pupils was for the teacher to win the confidence and love of the pupils:

> If securing the good will of scholars is preliminary to their attainment of *knowledge*, far more important is it to the cultivation of their *moral sentiments* and to the growth of *good habits*. It is an invariable law of Nature in regard to the young mind, that the affections are developed before the judgment. . . . . All the circumstances and conditions, therefore, which attend the first introduction of a teacher to his pupils, should conciliate, regard, and predispose to a mutual good understanding [IV, 28].

Mann evidently favored the extensive method of reading as a means of motivating study by pupils. Not only would such reading motivate the study in and of itself, but it would also develop the apperceptive mass of the child. His words regarding extensive reading were as follows:

> It seems to be the unanimous opinion of the teachers of all schools, whether public or private, that a School Library would be a most valuable auxiliary in interesting children in their studies. It would inspire the young with the desire to learn, that they might prepare themselves to enjoy what they saw was prized by others. Several of the rudimental studies could be invested, to the eye of the pupil, with new interest and usefulness by its means [III, 48-49].

Mastery of their subjects by teachers, according to Mann, would motivate learning. "Teachers should be able to teach *subjects*, not manuals merely" (III, 58). He continued:

> This knowledge should not only be thorough and critical, but it should be always ready at command for every exigency,—familiar like the alphabet, so that, as occasion requires, it will rise up in the mind instantaneously, and not need to be studied out with labor and delay [III, 58].

Closely related to the mastery of his field, in Mann's opinion, is the zeal of the teacher as a further means of motivation for good learning. In describing the teaching of the Prussian teacher in his *Seventh Annual Report* (1843), he wrote:

> This zeal of the teacher enkindles the scholars. He charges them with his own electricity to the point of explosion. Such a teacher has no idle, mischievous, whispering children around him, nor any occasion for the rod [III, 354].

On the other hand, Mann severely condemned certain attempts at motivation, no doubt common in his day as they are today. The first we might mention is the motive of fear, with regard to which he quoted Pestalozzi:

> "The motive of fear . . . . should not be made a stimulus to exertion. It will destroy interest, and will speedily create disgust. The *interest* in study is the first thing which a teacher should endeavor to excite and keep alive" [IV, 82].

Again, he condemned the teaching of mere word symbolism and rote mechanics as hindrances to real learning. In this condemnation as applied to the teaching of reading, he said in part:

> What more stupendous folly, then, can be conceived, than to teach children to read, without seeing that they understand what they read; to teach them the pauses and emphases and cadences which are designed to aid the intellect, and the modulation and tones which are expressive of the passions, while they

> themselves receive but little more conscious intelligence or emotion from the lesson than do the benches on which they sit! Still worse is it if coarse and harsh appliances are used as substitutes for those true and genuine sources of interest which are thus withheld [IV, 80].

Lastly, he severely opposed the practice of emulation as a means of motivation. He apparently held deep convictions on this matter, for he wrote against this practice many times and at length. In discussing its harm to morals, he said:

> And let those who use it [emulation], as a quickener of the intellect, beware, lest it prove a depraver of the social affections. There is no necessary incompatibility between the upward progress of one portion of our nature, and the lower and lower debasement of another. The intellect may grow wise, while the passions grow wicked. No cruelty towards a child can be so great as that which barters morals for attainment [II, 75].

> So, if a teacher desires that his pupil should be a great man rather than a good one; . . . . then he will goad him on by the deep-driven spur of emulation, or any other motive, until he outstrips his fellows, at whatever peril to his moral nature [IV, 89].

Too, Mann condemned the practice of emulation as resulting in poor and artificial learning. In criticizing the practice of giving daily recitation marks as a "spur to emulation," he referred to the injustice of recognizing "no difference between a mistake *in fact* and a mistake *in principle*" (IV, 84). Further, he stated:

> Again: will it not be conceded by all that the degree of emulation is excessive which induces scholars to study for *recitation* rather than for *knowledge?* . . . . The pupil who studies for recitation merely, is tempted, all the while to use the *artificial* memory: the pupil who studies for knowledge will use the *philosophic* memory only [IV, 85–86].

Conduct of the recitation.—One hundred years ago, as now, the conduct of the recitation was evidently considered an important part of the teaching procedure, for Mann had much to write about the recitation. Space will not permit a review of all that he said about it. However, certain of his salient views should be reviewed. He recognized both the positive and the negative features of the recitation. He said that "the hour of recitation is the hour of reckoning; the place of recitation is the place for weighing and gauging the amount of acquisition made by the pupils," but, he added, "emphatically, therefore, it is a place for fair dealing, for truth, for uprightness towards the teacher, and for equity between fellow-pupils" (IV, 52). Later he continued his warning by saying: "I fear that too much value is ordinarily attached to the recitation. I fear it is often regarded as an object, and not as an instrument; as the goal, and not as the path that leads to it" (IV, 53). He pointed out further that too often children recite merely on the words of the lesson rather than on the meaning of it.

Various suggestions were made by Mann concerning the procedure in conducting a recitation. In describing the Prussian and Saxon schools, he summarized certain characteristics of the recitations there as follows:

> 1. During all this time, I never saw a teacher hearing a lesson of any kind (excepting a reading or a spelling lesson), *with a book in his hand.*
>
> 2. I never saw a teacher *sitting* while hearing a recitation.
>
> 3. . . . . *I never saw one child undergoing punishment, or arraigned for misconduct* [III, 352].

In a later report Mann discussed the imperfect recitation. He began by saying:

> The teacher can insure any number of imperfect recitations by giving too long or too difficult lessons,—lessons beyond the ability of the scholars to learn; and thus a mere mistake in judgment, on the part of the teacher, may lead to discouragement or fraud on the part of the pupils [IV, 43].

Other matters mentioned by him were the use of poor or improper *questions, failure to question the pupils in promiscuous order,* and failure to review sufficiently.

One thing that he praised in certain European schools was the presence of "abundant and appropriate apparatus" (III, 274). He further commented on how the teachers led the children to use the apparatus and equipment.

Lastly, Mann stressed the importance of recognition by the teacher of the individual needs and abilities of the children during the recitation. He suggested that "what is presented should be attainable by an effort, for, without success, discouragement and despair will ensue" (II, 539). Again, he said:

> Lessons, as far as it is possible, should be so adjusted *to the capacity* of the scholar, that there should be no failure in a recitation not occasioned by culpable neglect. The sense of shame, or of regret for ignorance, can never be made

> exquisitely keen, if the lessons given are so long, or so difficult, as to make failures frequent [III, 64].

In the *Seventh Annual Report* (1843) he applied this principle to the questioning in the recitation:

> The other point referred to is that of adjusting the ease or difficulty of the questions to the capacity of the pupil. . . . . The questions should be ever so childishly simple, rather than that the answers should be erroneous. No expense of time can be too great, if it secures the habit and the desire of accuracy [III, 358].

These brief references indicate that Mann clearly recognized that the function of the recitation is to guide, stimulate, and integrate learning, and not merely to hear or to re-say lessons.

Concluding statements.—This short treatment of Mann's ideas on the general methods of teaching indicates that he must have spent much thought and time on the improvement of teaching. Many of these ideas are pertinent and acceptable today. It has been said, therefore, that Mann was one hundred years ahead of his time. In some respects this is certainly true. However, it is questionable how much credit should be given him for originating these ideas on methods.

Mann's chief fame rests on his ability as a vigorous and an effective administrative educational leader. It is the opinion of this writer that Mann originated few ideas on educational methods but that he must have been both a discerning reader of the educational theorists, especially Pestalozzi, and a keen observer and critic of good teaching. He observed teaching not only in this country but also in the leading countries of Europe. Consequently, his best treatment on methods is found in his writings after the European trip. However, Mann should receive historical recognition for his remarkable ability to identify and select those ideas of the theorists and those methods of the best teachers which would be most suitable in the common schools and for his work in interpreting and popularizing these ideas in his lectures and writings. In this way he influenced education positively, not only in Massachusetts, but also in other states and countries; not only in his own time, but also in subsequent educational history.

THE INFLUENCE OF PHONICS ON SILENT READING IN GRADE I

HARRY L. TATE
Eli Whitney School, Chicago, Illinois

PURPOSE AND PLAN OF THE INVESTIGATION

The purpose of this investigation is to determine the influence of phonics on silent reading in Grade I when a special period is used for formal instruction and drill in phonics.

Procedure in the experimental group.—For purposes of phonic instruction the experimental class was divided into two groups, Division A consisting of the twenty-two most capable pupils and Division B consisting of the fifteen less capable children. Every morning each group was allotted a special fifteen-minute period in which instruction and drill in phonics only was carried on. It is well to state that this program is unusual at the Whitney School inasmuch as formal instruction in phonics was abandoned several years ago. However, the first-grade teachers have been accustomed to imparting an incidental knowledge of the more essential elements of the subject, and the pupils have been guided into the attitude of using this knowledge as an aid in pronouncing words that they have been unable to master by the look-and-say method. In other words, the criterion of "felt need" has been set up and followed. Thus, while the main emphasis has been placed on the look-and-say method, the children included in this experiment were not without some knowledge of phonics and some training in using them. For instance, the pupils were familiar with the single initial consonants and vowels, which had been taught by the story method, and had also mastered a number of the more common phonograms, such as *sh* and *ee*.

The teacher used part of the special period given to phonics for drilling with flash cards showing the single initial consonants and vowels. This work was continued until every child knew the sounds perfectly. The phonograms were then treated in the same manner.

A review was conducted daily. A part of the time was devoted to teaching various phonograms from a chart on which was printed a key word followed by many others containing the same sound as the phonogram, for example, *ee*, *bee*, *tree*, etc. The following phonograms were used during the eight-week experiment: *ow*, *ar*, *oi*, *ew*, *th*, *oo*, *ch*, *ing*, *oy*, *sh*, *ee*, *ight*, *wh*, *er*, *or*, *ea*, *ou*, *ay*, *ir*, *ai*, *old*, and *all*. Work was also done with charts containing long-vowel words.

Many games were utilized for the purpose both of motivation and of learning. In the games the children were kept alert vying with one another in recognizing and pointing out words. The following statements reveal the nature of some of the games that were used:

1. "I am thinking of a word that sounds like *ring*." "You are thinking of *sing* [or *bring* or some other word that contains *ing*]."
2. "I will say three words and you pick two of them that rhyme: *ran*, *make*, *man*."

Various other ear-training games were used from time to time

Both in the supplementary and in the basic reading the emphasis in attacking new words was placed on the phonetic method. However, none of the other elements that enter into the proper teaching of reading were neglected. In the supplementary reading, where the major emphasis was placed on thought-getting, the pupils were encouraged to recognize new words from the context. During the regular and the supplementary reading periods, as distinguished from the phonic-drill period, the experimental group was divided into three groups.

Procedure in the control group.—The control class was also allotted a special period of thirty minutes each morning to correspond to that allowed the experimental class. During this time the class was divided into three groups: Division A consisting of the seventeen most capable pupils, Division B having the twelve who ranked medium in ability, and Division C consisting of the seven who rated low in ability. Each division was given ten minutes. The nature of the work done during the special periods and the slightly differing abilities of the experimental and the control groups were the factors influencing the separation of the former into two subgroups and the latter into three. Such a discrepancy seemed to be necessary in order that the use of the special thirty-minute period should not be an unbalancing factor. In other words, the teachers felt that the efficiency attained in reaching each child effectively was far more important than the mere use of an equal amount of time.

All through the experiment no phonics were employed in the control group either during the special thirty-minute period or during the regular reading periods. In order that phonics should become the experimental factor, it became necessary to drop the incidental instruction in the control group.

The ten-minute periods were devoted to rapid drill work covering the following reading factors: (1) word recognition; (2) phrase recognition; (3) recognition of the sense of a selection, including (*a*) exercises requiring dramatic action, (*b*) completion exercises, and (*c*) exercises requiring oral response. The material used, with the exception of the word-recognition exercises, was for the most part different from the content of the basic textbook.

New words were introduced by the story-telling method, and the only equipment used consisted in word cards. When a child was confronted with a reading difficulty and was unable to solve it, the teacher assisted him by asking questions on the context. If this method proved unsuccessful, the word was named for him either by another pupil or by the teacher.

After the first few days the children showed little inclination to help themselves through their incidental knowledge of phonics There were, however, a few occasions when a child would voluntarily solve his difficulty through the use of phonics, and a few pupils always solved their problems, silently, by the use of phonics. The use of phonics, however, was not confined to any one of the three divisions of the control group.

COMPARISON OF EXPERIMENTAL AND CONTROL GROUPS

Abilities of the classes.—All the pupils in Grade I A were subjects in the experiment, there being a sufficient number for an experimental group and a control group. These classes were of almost equal ability. The groups, however, were not equated on the basis of intelligence quotient, mental age, or other measure of ability. For several years it has been the practice at the Whitney School to establish two classes in Grade I B in September according to the following plan. All pupils of both the morning and the afternoon kindergartens are listed alphabetically as one group. The odd-numbered pupils are sent to one first-grade teacher and the even-numbered pupils to the other teacher. Entering children who have never attended kindergarten are also allocated alternately as they arrive, the memberships of the two classes thus being kept even. These classes go on into Grade I A with the same teachers. Statistically, when applied to large numbers, this method produces two equated groups. In the case of this experiment, however, where only a small number of cases was involved, the writer entertained some doubt that the division secured by this method was as satisfactory as would have been the case if the customary equating method had been followed. However, since the division was not made until the second semester was a month under way, the teachers and the writer agreed that whatever gain might have been secured by the use of the equating method would more than be outweighed by the loss that would accrue from a change of rooms.

TABLE I

CHRONOLOGICAL AGE, MENTAL AGE, AND INTELLIGENCE QUOTIENT OF EXPERIMENTAL AND CONTROL GROUPS

	Experimental Group	Control Group
Number of pupils	37	36
Median chronological age (in years and months)	6–7	6–7
Median mental age (in years and months)	7–3	7–5
Median intelligence quotient	108	109

The data in Table I will convince the reader that the method used worked out with a high degree of efficiency. The data on the chronological age, mental age, and intelligence of both groups came from the school records. The grade placement of the pupils at the beginning of the experiment was 1.6 and at the end 1.8. For several years past all children who have entered the Whitney School have been given the Otis Group Intelligence Scale. If doubt has arisen concerning the accuracy of the results, the pupils have been retested by another form. So far as intelligence is concerned, the control group began the experiment with a slight advantage. No doubt this advantage was statistically negligible. There was no way to avoid a difference of one pupil in the size of the classes as the school had only two classes in Grade I A. This difference can be safely disregarded so far as it might be considered as leading to an unbalancing of the classes. It might be mentioned that the judgment of the Whitney School faculty concerning the inaccuracies of the intelligence quotients of very young pupils agrees with the results of investigations. Although the median intelligence quotients of the two groups of this experiment are probably too high, for the purpose of comparison they are acceptable.

Nationality of pupils.—The population of the Whitney School district is predominantly foreign. No figures are available on the composition of the population, but the neighborhood is generally thought of as Bohemian. The faculty's judgment is that 80 per cent of the pupils are of Bohemian extraction, some of the children having been born in the old country. Germans rank next and then a scattering of many other nationalities. As is typical of a community of this kind, some homes have no books, magazines, or newspapers printed in English, and in a great many homes the child does not hear nor speak English. The people are of the working class, largely skilled and unskilled laborers, office and store employees, and small shopkeepers. Most of the children do not finish high school, as the parents expect them to contribute early in life to the family income.

TESTS USED

At the beginning of the experiment Form 1 of the Gates Primary Reading Test was given, and at the end Form 2 of the same test was administered. This test consists of three parts: Type 1, Word Recognition; Type 2, Word, Phrase, and Sentence Reading; and Type 3, Reading of Directions. This test was peculiarly adapted to the purpose of the experiment, for it tests three different phases of reading ability. The effect of instruction in phonics on first-grade reading would therefore be revealed over a range three times as wide as would be the case if comprehension of paragraphs alone had been the factor tested. The author's directions for administering and scoring the tests were followed to the letter. The children had taken several standardized tests during their short school careers, and both teachers had been administering and scoring tests for fifteen years.

THE CURRICULUM

The basic textbook was *The Elson Basic Reader.*[1] In order that the curriculum content should not become a variable factor, the two groups were held to the same amount of daily reading matter. The number of pages covered by each division of each group during the experiment was as follows: Division A, pages 46–130; Division B, pages 41–130; Division C, pages 41–90.

In the supplementary reading no preparatory procedure was used in either group. The children thus found here an opportunity to put into practice the knowledge and skills that they had acquired. No attempt was made to hold the classes to the same pages nor even to the same books.

The following books were read by the divisions of the experimental group.

DIVISION A

1. Eva A. Smedley and Martha C Olsen, *The New Primer* The Smedley and Olsen Series. Chicago: Hall & McCreary Co., 1926.
2. Catherine Turner Bryce and Rose Lees Hardy, *Playtime.* Newson Readers, Primer. New York: Newson & Co., 1927.
3. Sidney G. Firman and Ethel Maltby Gehres, *The New Winston Readers,* Primer. Philadelphia: John C. Winston Co., 1928
4. Frank N. Freeman, Grace E. Storm, Eleanor M. Johnson, and W C. French, *Child-Story Readers,* Primer. Chicago. Lyons & Carnahan, 1927.
5. Mary E. Pennell and Alice M. Cusack, *Happy Children Readers,* Book I. Boston. Ginn & Co., 1925.
6. Frank Jay Prout, Emeline Baumeister, and Helen Renner, *Thought Test Readers,* Primer. Lincoln, Nebraska: University Publishing Co , 1926.

DIVISIONS B AND C

1. Marjorie Hardy, *Wag and Puff.* The Child's Own Way Series. Chicago: Wheeler Publishing Co., 1926.
2. Helen Hefferman, Lillian Bray Hill, and Jane M. Ward, *The Open Road.* Highway to Reading Series. Chicago: Lyons & Carnahan, 1933.

---

[1] William H. Elson and William S Gray, *The Elson Basic Readers,* Book I. Chicago Scott, Foresman & Co., 1930.

3. Catherine Turner Bryce and Rose Lees Hardy, *Playtime*. Newson Readers, Primer. New York: Newson & Co., 1927.

4. Frank N. Freeman, Grace E. Storm, Eleanor M. Johnson, and W. C French, *Child-Story Readers*, Primer. Chicago: Lyons & Carnahan, 1927.

5. Eva A. Smedley and Martha C. Olsen, *The New Primer* [three-quarters of the book]. The Smedley and Olsen Series. Chicago: Hall & McCreary Co., 1926.

The following books were read by the control group.

DIVISIONS A AND B

1. Marjorie Hardy, *Wag and Puff*. The Child's Own Way Series. Chicago: Wheeler Publishing Co., 1926.

2. Catherine Turner Bryce and Rose Lees Hardy, *Good Times*. Newson Readers, Book I. New York: Newson & Co., 1927.

3. Marjorie Hardy, *Surprise Stories*. The Child's Own Way Series. Chicago: Wheeler Publishing Co. 1926.

4. Catherine Turner Bryce and Rose Lees Hardy, *Playtime*. Newson Readers, Primer. New York: Newson & Co., 1927.

DIVISION C

1. Marjorie Hardy, *Wag and Puff*. The Child's Own Way Series. Chicago: Wheeler Publishing Co., 1926.

2. Catherine Turner Bryce and Rose Lees Hardy, *Playtime*. Newson Readers, Primer. New York: Newson & Co., 1927.

TIME SCHEDULE

In both the experimental and the control groups a total reading time of 165 minutes was used daily. Thirty minutes were allowed in the experimental group for instruction and drill on phonics (fifteen minutes for each of the two divisions), and thirty minutes were allotted in the control group to the special drill work to which reference has been made (ten minutes for each of its three divisions). The balance of 135 minutes in each group was divided into nine fifteen-minute periods, three for each of the divisions.

THE TEACHERS

In order that the differing personalities and methods of the teachers might not enter into the experiment as a possible variable, it was originally planned that one of the teachers was to handle reading in both the experimental and the control groups while the other teacher was taking care of the balance of work in both groups. This arrangement never materialized, however, because the short periods required for young children would have necessitated an excessive number of class changes. The confusion resulting therefrom and the loss of time attendant to settling down to work might have had an unwholesome effect on the pupils. So far as technical teaching skill and ability are concerned, the use of two individuals for teaching the reading was not an unbalancing factor. Both teachers are extremely capable, and both have been engaged in first-grade work for approximately twenty years. The writer feels confident also that they put forth no undue effort to obtain results either in the reading or in the testing periods and that no rivalry existed between them In other words, a strictly scientific attitude was in evidence all through the experiment.

ABSENCES

The teacher of the experimental group was present every day, and the teacher of the control group was absent only one day. A capable substitute taught the pupils, however, and adhered closely to the detailed plans and instructions that had been left for her.

A less fortunate situation arose with regard to pupil absences The experiment ran for eight weeks beginning on March 2, 1936, and ending on April 24, 1936. Types 1 and 2 of the Gates test were given on March 2 and Type 3 on March 3. All the pupils of the control group were present on both the initial testing days, while in the experimental group seven children took the test an average of 6.7 days later than the class. The last final test was given on the Friday preceding the one-week spring vacation. Pupils who were absent on that day were handicapped by the loss in achievement, if any, sustained during the vacation and, in addition, suffered a further possible loss for the days of absence that followed the spring vacation. Including the five days of the vacation, three pupils in the experimental group averaged 11.3 days lateness in testing, and seven pupils of the control group averaged 20 7 days. During the experiment only eight pupils of the control group had perfect attendance, while 28 pupils were absent for an average of 4.6 days. Only nine pupils of the experimental group had perfect attendance, while 28 pupils were absent for an average of 6.1 days. On account of the lateness in testing, an arbitrary period of three days was allowed each pupil on returning before the final test was given. It was hoped that during these days he would be able to recover any loss which he might have sustained through missing the entire final test or any of its three parts. Careful attendance records were kept by the teachers so that the performance of a child who was not enrolled for the entire duration of the experiment would not be allowed to enter into the compilation of data.

TABLE II

GRADE SCORES MADE BY EXPERIMENTAL AND CONTROL GROUPS ON GATES PRIMARY READING TEST

Test	Median of Experimental Group	Median of Control Group	Difference in Favor of Experimental Group
Type 1, Word Recognition:			
Initial test	2.27	2.20	0.07
Final test	3.00	2.47	0.53
Gain	0.73	0.27	0.46
Type 2, Word, Phrase, and Sentence Reading:			
Initial test	2.20	2.22	−0.02
Final test	2.80	2.90	−0.10
Gain	0.60	0.68	−0.08
Type 3, Reading of Directions:			
Initial test	2.10	1.95	0.15
Final test	2.75	2.75	0.00
Gain	0.65	0.80	−0.15

RESULTS OF THE EXPERIMENT

In Table II are presented the data upon which a comparison of the performances of the classes must rest and from which the conclusions must be drawn. In word recognition (Type 1) the experimental group had an initial advantage of 0.7 of a month; in understanding sentences (Type 2) it had a handicap of 0.2 of a month; and in understanding paragraphs (Type 3) it had an advantage of 1.5 months. The final-test medians show that at the end of the experiment the experimental group had an advantage of 5.3 months in word recognition; that it was at a disadvantage of 1.0 month in understanding sentences; that in understanding paragraphs its performance was exactly the same as that of the control group. More meaningful are the data on the gains. During the two months of the experiment the experimental group registered a gain of 7.3 months in word recognition, while the control group gained only 2.7 months. In understanding sentences the experimental group increased its achievement by 6.0 months as compared with the control group's gain of 6.8 months. The experimental group gained only 6.5 months in the reading of directions, while the control group gained 8.0 months. The last gain was the largest of any registered and is all the more important because it represents progress in the ability to understand paragraphs. The next largest gain was that of 7.3 months made by the experimental group in the ability to recognize words. The smallest gain was that of 2.7 months made by the control group in the ability to recognize words. The gains of the two groups in the power to get meaning from sentences were almost the same.

In word recognition the experimental-group children gained 4.6 months more than the control-group children; in the understanding of sentences their gain was 0.8 of a month less than that of the control-group children; and in the ability to comprehend paragraphs their gain was inferior to that of the control-group pupils by 1.5 months. The gain of the experimental group was 270 per cent of the gain of the control group in word recognition, 88 per cent of the control-group gain in sentence-reading, and 81 per cent of the control-group gain in the reading of paragraphs of directions. Since the data were not given statistical treatment, the significance of these differences in gains is not known with certainty. It would appear, however, that all are sufficiently large to have some meaning—that for Type 2 at least shows a trend, that for Type 3 a decided trend, and that for Type 1 an overwhelming proof of a reliable finding.

COMMENTS OF TEACHERS

Although observations of teachers cannot be classed as objective data, they should be given weight as evidence of a kind, especially when the teachers involved in an experiment are as highly competent, as scientifically minded, and as sincerely interested in a project as were the two who participated in this study.

The control-group teacher reported that since most of her teaching was like the instruction which she had been giving for years, there was no need for special comment.

The experimental-group teacher gave the following series of interesting comments.

1. Division A of the preceding year, with a median intelligence quotient of 110, over the same period of time read half a book more than the experimental Division A, while the preceding year's Divisions B and C read one and a quarter more books. In my opinion this difference occurred because the experimental classes lost time by stopping to sound words.
2. The eight weeks of regular phonic drill made some of the pupils "word-conscious." They often stopped to sound a word that ordinarily would have come easily if perceived with less concern. However, other pupils were not affected at all.
3. If the experiment had been prolonged beyond eight weeks, a still greater gain in the ability to recognize words, as compared with the ability to comprehend sentences and paragraphs, would have resulted.
4. The special daily period of thirty minutes gave too much stress to phonic teaching and drill. A proper length of period should be discovered in order to secure a balance of development in the various reading abilities.
5. At least 25 per cent of the pupils, none of whom ever used their lips in silent reading before the experiment, developed the habit as a result of the work in phonics. A prolonged experiment might have resulted in establishing this bad habit in most or all members of the class.
6. The children took the initial test with less concern than they took the final test. In the former they recognized unfamiliar words largely through context, while in the latter some stopped to sound the unknown words. Many of the children finished Types 2 and 3 of the initial test in far less time than is allowed. Very few finished the final test, however, with any great leeway of time.

CONCLUSIONS

In this experiment ample evidence was obtained to justify several important conclusions regarding phonics instruction and drill as employed in this experiment. These are not considered by the investigator to have universal application but are thought of only in the light of empirical findings. The conclusions are: (1) Phonics instruction and drill, as judged by the results of the Gates Primary Reading Test, Type 1, is far superior to the look-and-say method in developing the ability to recognize words. (2) The results of Type 2 of the Gates test give a slight indication that the look-and-say method is superior to phonics instruction and drill in developing the ability to comprehend sentences. (3) Results obtained from Type 3 of the test show conclusively that the look-and-say method is superior to phonics instruction and drill in developing the ability to comprehend paragraphs of directions. (4) The use of as many as thirty minutes daily for special phonics instruction and drill leads to an unbalanced development of the abilities to comprehend words, to understand sentences, and to grasp the meaning of paragraphs.

Other deductions that do not rest directly on the data and therefore do not have the weight of conclusions are, in the opinion of the investigator, justified. These inferences are: (1) Regular periods for phonics instruction and drill are not desirable. (2) Phonics should be used by the pupil as a tool and not as subject matter to be mastered for its own value. (3) Overemphasis on phonics hinders rapidity and thoroughness of comprehension.

GUIDE TO THE LITERATURE ON PUBLIC-SCHOOL ADMINISTRATION[1]

ARVID J. BURKE
New York State Teachers Association, Albany, New York
CARTER ALEXANDER
Teachers College, Columbia University

Public-school administration has differentiated into a number of specialized fields, each with a formidable literature of its own. This situation and the fact that Alexander's pamphlet on research in educational administration[2] is no longer issued provide the need for this brief guide.

NATURE OF THE GUIDE

When these notes are used, the following points should be kept in mind: (1) The guide is strictly limited to the professional literature on the administration of public elementary and secondary education. (2) Only published or available mimeographed materials are listed. (3) Where a guide is available for a special field, such as elementary education, rural education, or secondary education, that guide is cited rather than separate bibliographies. For materials on the detailed phases of one of these three fields, such as extra-class activities, guidance, library, methods and teaching aids, measurement, and textbooks, consult the proper guide. (4) Whereever possible, three types of bibliographies are cited, distinguished by the following key letters:

S denotes the most recent short, selected bibliography.

C denotes the most recent comprehensive bibliography covering the literature prior to 1929, when the *Education Index*, with its extensive and well-classified listings, began publication.

---

[1] One of a series of guides to the professional literature of various phases of education initiated by Carter Alexander, library professor, Teachers College, Columbia University, and worked up by students in his courses. The effort is made to publish each guide in a periodical of special interest in its field. Information on the guides completed, under way, and contemplated, and the places of publication may be obtained from Professor Alexander.

[2] Listed as *C* reference under the later heading "Bibliographies—General Field."

U denotes suggestions for supplementing the foregoing types of bibliographies and for bringing them up to date.

(5) For detailed suggestions on how to locate the various references and indexes named, see:

ALEXANDER, CARTER. *How To Locate Educational Information and Data.* New York. Teachers College, Columbia University, 1935. Pp. xxvi+272.

BIBLIOGRAPHIES—GENERAL FIELD

S WILSON, LESTER M., and KANDEL, I. L. *Introduction to the Study of American Education*, chaps. iii–v. New York: Thomas Nelson & Sons, 1934

Brief chapter bibliographies

NEWLON, JESSE H. *Educational Administration as Social Policy* New York: Charles Scribner's Sons, 1934. Pp. xiv+302.

The Appendix gives short lists of books and research studies on the whole field and the various special fields.

C ALEXANDER, CARTER. *Educational Research—Suggestions and Sources of Data with Specific Reference to Administration.* New York: Teachers College, Columbia University, 1931. Pp. vi+116.

Contains bibliographies or references on more than 150 phases of school administration.

STRAYER, GEORGE D., ENGELHARDT, N. L., and OTHERS *Problems in Educational Administration.* New York: Teachers College, Columbia University, 1925. Pp. xviii+755. (Supplementary bibliographies issued in mimeographed form in 1933 and 1935.)

The chapter bibliographies and supplementary bibliographies provide extensive references on specific problems in school administration

U See main heading of "Clues to Sources of Data and Additional References," subheading of "Bibliographies," following.

BIBLIOGRAPHIES—SPECIAL PHASES OF SCHOOL ADMINISTRATION

Attendance and child accounting

See the later subheadings "Elementary-school administration," "Pupil personnel," and "Secondary-school administration"

Board of education

See the later subheading "Business administration" in this section and the subheading "General school administration" under the main heading "Clues to Sources of Data and Additional References."

Budget-making

See the later subheading "Business administration" and:

DE YOUNG, CHRIS A. *Budgeting in Public Schools.* New York: Doubleday, Doran & Co., Inc., 1936. Pp. xiv+610.

Gives chapter bibliographies.

Buildings, grounds, equipment, and supplies

S LOWRY, WILLIAM J. "A Bibliography of Fifty Outstanding Books on School and College Buildings and Allied Topics," *American School and University,* VIII, 60-62. New York: American School Publishing Corp., 1936.

C SMITH, HENRY LESTER, and NOFFSINGER, FOREST RUBY. *Bibliography of School Buildings, Grounds, and Equipment,* Parts II, III, and IV. Bulletin of the School of Education, Indiana University, Vol. IX, Nos. 2 and 3, and Vol. XI, No. 2. Bloomington, Indiana: Bureau of Co-operative Research, Indiana University School of Education, 1933 and 1935.

Covers 1927 to 1934. For references prior to 1927, see:

SMITH, HENRY LESTER, and CHAMBERLAIN, LEO MARTIN. *A Bibliography of School Buildings, Grounds, and Equipment.* Bulletin of the School of Education, Indiana University, Vol. IV, No. 3, 1928.

U *Education Index,* "School Buildings"; *Review of Educational Research,* Vol. II, No. 5 (December, 1932), Vol. V, No. 4 (October, 1935), and forthcoming number in 1938, "School Plant" cycle. Associations: National Council on Schoolhouse Construction, American Planning and Civic Association. Periodicals: *American School Board Journal, Nation's Schools.* Reference books: *American Planning and Civic Annual, American School and University,* and *Sweet's Architectural Catalogue.*

Business administration

S LINN, HENRY H. *Practical School Economies.* New York: Teachers College, Columbia University, 1934 Pp. xxiv+462.

Chapter bibliographies contain basic references in the field.

C ALEXANDER, CARTER (Chairman). *Finance and Business Administration (Review of References from 1923 to 1931).* Review of Educational Research, Vol. II, No. 2 (April, 1932), pp. 95-182.

U *Education Index,* "Business Administration of Schools"; *Elementary School Journal,* list of selected references on "Business Management" in February numbers; *Review of Educational Research,* Vol II, No. 2 (April, 1932); Vol. V, No 2 (April, 1935), and forthcoming number in 1938, "Finance and Business Administration" cycle. Association: National Association of School Business Officials. Periodicals: *American School Board Journal, Nation's Schools,* and *School Executive.* Editorials in these same periodicals. Reference book: Proceedings of the association named above.

City schools

S ALEXANDER, CARTER. "A Professional Library for a City Superintendent of Schools," *Teachers College Record*, XXXII (May, 1931), 724–29.

C CUBBERLEY, ELLWOOD P. *Public School Administration*, Part II. Boston: Houghton Mifflin Co., 1929 (revised). Pp. xxii+710.

Briefly annotated chapter bibliographies.

U *Education Index*, "Administration of Schools," "City", *Elementary School Journal*, list of selected references on "City School Administration" in January numbers; and *Review of Educational Research*, Vol. I, No. 3 (June, 1931), Vol. IV, No. 4 (October, 1934), and Vol. VII, No. 4 (October, 1937), "School Organization" cycle, chapter on "City School Administration."

Community relations

See the later subheading "Publicity and public relations."

Consolidated and village schools

S ALEXANDER, CARTER, and BURKE, ARVID J. "Suggested Minimum Professional Library for School Executives in Village and Rural School Systems," *New York State Education*, XXII (February, 1935), 382–84, 407.

C LANGFITT, R. EMERSON; CYR, FRANK W., and NEWSOM, N WILLIAM. *The Small High School at Work*. Chicago: American Book Co., 1936. Pp. xii+660.

Contains good selected references on special problems of the village schools, such as transportation, business administration, housing, and community relations, with the various chapters.

U *Education Index*, "Consolidated Schools," "Rural High Schools," and "Rural Schools."

County schools

See also the later subheading "Rural-school administration."

S COVERT, TIMON (Compiler). *Good References on Consolidation of Schools and School Districts*. United States Office of Education Bibliography No. 27 (1934). Pp. 10.

Includes basic references on the county unit.

C JAGGERS, RICHARD E. *Administering the County School System*. Chicago. American Book Co., 1934. Pp. vi+232.

Bibliography is given on pages 223–28.

U *Education Index*, "Administration of Schools," "County"; *Review of Educational Research*, Vol I, No. 3 (June, 1931), Vol. IV, No. 4 (October, 1934), and Vol. VII, No 4 (October, 1937), "School Organization" cycle, chapter on "County School Administration."

Curriculum

DECH, ALAN O. "A Guide to the Literature of the Curriculum," *Teachers College Record,* XXXV (February, 1934), 407–14.

This guide should be supplemented by:

NORTON, JOHN K., and NORTON, MARGARET ALLTUCKER. *Foundations of Curriculum Building.* Boston: Ginn & Co., 1936. Pp. x+600.

Chapter bibliographies.

District organization

S COOK, KATHERINE M. (Editor and Compiler). *Reorganization of School Units.* United States Office of Education Bulletin No. 15, 1935. Pp. 92.

Contains a short selected bibliography.

C DAWSON, HOWARD A. *Satisfactory Local School Units.* Field Study No. 7 Nashville, Tennessee: Division of Surveys and Field Studies, George Peabody College for Teachers, 1934. Pp. x+180.

Chapter bibliographies.

U *Education Index,* "Administration of Schools," "District"; *Review of Educational Research,* Vol. III, No. 5 (December, 1933), "The Legal Basis of Education," chapter on "District Organization and Control"; *Review of Educational Research,* Vol. I, No. 3 (June, 1931), Vol. IV, No. 4 (October, 1934), and Vol. VII, No. 4 (October, 1937), "School Organization" cycle, chapter on "Units of School Organization."

Elementary-school administration

S MCSWAIN, E. T., and ALEXANDER, CARTER. "Guide to the Literature on Elementary Education," *Elementary School Journal,* XXXV (June, 1935), 747–59. Reprints, as long as they last, available from Carter Alexander, Teachers College, Columbia University, New York City, at 15 cents a copy postpaid

C DOUGHERTY, JAMES HENRY; GORMAN, FRANK HERMON; and PHILLIPS, CLAUDE ANDERSON. *Elementary School Organization and Management.* New York. Macmillan Co., 1936. Pp. xx+454.

Chapter bibliographies

U Association: Department of Elementary School Principals of the National Education Association. Periodical: *Elementary School Journal.* Reference book: Yearbook of the Department of Elementary School Principals

Finance and taxation

S "Brief List of References on School Finance." Washington: Research Division of the National Education Association, June, 1936. Pp. 3 (mimeographed).

C ALEXANDER, CARTER, and COVERT, TIMON. *Bibliography on School Finance, 1923–1931.* National Survey of School Finance. United States Office of Education Bulletin No. 15, 1932. Pp. x+344.

U *Education Index,* "School Finance"; *Review of Educational Research,* Vol. II, No. 2 (April, 1932), Vol. V, No. 2 (April, 1935), and forthcoming number in 1938, "Finance and Business Administration" cycle; *Review of Educational Research,* Vol. III, No. 5 (December, 1933), "The Legal Basis of Education," chapter on "School Finance"; *Elementary School Journal,* list of selected references on "School Finance" in February numbers. Associations: National Education Association, Tax Policy League. Government agencies: United States Office of Education; United States Bureau of the Census; Departments of Agriculture, Commerce, and Labor of the United States. Research agencies Brookings Institution, National Bureau of Economic Research, Research Division of the National Education Association, and National Industrial Conference Board.

Health service

S WILLIAMS, JESSE FEIRING, and BROWNELL, CLIFFORD LEE. *The Administration of Health and Physical Education.* Philadelphia: W. B. Saunders Co, 1934. Pp. 598.

Good bibliographical references in footnotes.

C CHAYER, MARY ELLA (Compiler) *Bibliography in Health Education for Schools and Colleges.* New York; G. P. Putnam's Sons, 1936 Pp. 100

U *Education Index,* "Health Education"; *Elementary School Journal,* list of selected references on "Health and Physical Education" in November numbers.

Legal and school law

S ALEXANDER, CARTER. *How To Locate Educational Information and Data,* chap xx. New York: Teachers College, Columbia University, 1935.

C COFFEY, WILFORD L. "How To Find the School Law," *The Fourth Yearbook of School Law,* pp 117–54. Washington: M. M. Chambers (744 Jackson Place), 1936.

U Periodical: *Educational Law and Administration.* Reference book: *Yearbook of School Law.*

Organization

See guides under subheadings of "Elementary-school administration," "Rural-school administration," and "Secondary-school administration"

Public administration

S *Public Administration Libraries.* Chicago: Public Administration Service (850 East Fifty-eighth Street), 1934. Pp. 68.

A list of libraries is given on pages 63–65

C Greer, Sarah. *A Bibliography of Public Administration.* New York: Institute of Public Administration (Columbia University), 1933. Pp. xii+90.

U *Public Affairs Information Service,* "Public Administration"; *Education Index,* "Administration, Public"; *Cumulative Book Index,* "Public Administration." Association: National Municipal League. Periodical: *National Municipal Review.* Reference book: *Municipal Index and Atlas.* Research agencies: Brookings Institution, Washington, D.C.; Institute of Public Administration, Columbia University, New York City; Public Administration Service (850 East Fifty-eighth Street), Chicago, Illinois.

Publicity and public relations

S Farley, Belmont. *School Publicity.* Stanford University, California. Stanford University Press, 1934. Pp. iv+118.

Chapter bibliographies.

C "Brief Bibliography on Publicity—Educational Interpretation, Public Relations, Propaganda." Washington: Research Division of the National Education Association, November, 1935. Pp. 23 (mimeographed).

Lists other bibliographies prior to 1928 and covers period 1928 to 1935.

U *Education Index,* "Publicity"; *Elementary School Journal,* list of selected references on "Public Relations" in February numbers; *Review of Educational Research,* Vol. II, No. 2 (April, 1932), "Finance and Business Administration," chapter on "Public Relations." Association: National Association for Educational Publicity (affiliated with the American Association of School Administrators, a department of the National Education Association).

Pupil personnel

S Graves, Frank Pierrepont. *The Administration of American Education,* Part I. New York: Macmillan Co., 1932.

Chapter bibliographies contain many of the important references in the field.

C Heck, Arch O. *Administration of Pupil Personnel.* Boston: Ginn & Co., 1929. Pp. xx+480.

Chapter bibliographies

U *Education Index,* "Personnel Service"; *Review of Educational Research,* Vol. III, No. 3 (June, 1933), Vol. VI, No. 2 (April, 1936), and forthcoming number in 1939, "Pupil Personnel, Guidance, and Counseling" cycle.

Research bureaus

S Weidemann, C. C. "Research Bureaus Should Be Centered in School Organization," *Nation's Schools,* XII (September, 1933), 27–30.

A bibliography of six unannotated references, some containing bibliographies, appears on page 30.

U For notes on keeping up to date, see the following subheadings of the last section of this guide: "Research agencies," "Researches, locating," and "Researches needed."

Rural-school administration

CHERRY, ANNIE M., HOLDFORD, ANNE V, and ALEXANDER, CARTER. "Guide to the Literature on Rural Education," *Elementary School Journal*, XXXVI (June, 1936), 748–59. Reprints, as long as they last, available from Carter Alexander, Teachers College, Columbia University, New York City, at 15 cents a copy postpaid.

Association: Department of Rural Education of the National Education Association.

Secondary-school administration

S MANSKE, ARTHUR J., and ALEXANDER, CARTER. "Guide to the Literature on Secondary Education," *School Review*, XLII (May, 1934), 368–81. Reprints, as long as they last, available from Carter Alexander, Teachers College, Columbia University, New York City, at 15 cents a copy postpaid.

C MAXWELL, CHARLES ROBERT, and KILZER, LOUIS RUDOLPH. *High School Administration.* New York: Doubleday, Doran & Co , Inc., 1936. Pp. x+514.

Chapter bibliographies.

U Association: Department of Secondary-School Principals of the National Education Association. Periodicals: *School Review, Clearing House.* Reference book: *Bulletin of the Department of Secondary-School Principals.*

State school administration

S GRAVES, FRANK PIERREPONT. *The Administration of American Education,* chap. xxv. New York: Macmillan Co., 1932.

Chapter bibliography.

C CUBBERLEY, ELLWOOD P. *State School Administration.* Boston: Houghton Mifflin Co., 1927. Pp. xx+774.

Still the most recent thorough review of the literature of state school administration.

U *Education Index,* "Administration of Schools," "State"; *Elementary School Journal,* list of selected references on "State School Administration" in January numbers; *Review of Educational Research,* Vol. I, No. 3 (June, 1931), Vol. IV, No. 4 (October, 1934), and Vol VII, No. 4 (October, 1937), "School Organization" cycle, chapter on "State School Administration"; *Cumulative Book Index,* "Education and State" and "School Administration and Organization." Association: National Council of State Superintendents and Commissioners of Education.

Superintendents

S Graves, Frank Pierrepont. *The Administration of American Education*, chap. xxi. New York: Macmillan Co., 1932.

Brief selected chapter bibliography.

C Reller, Theodore Lee. *The Development of the City Superintendency of Schools in the United States*. Philadelphia: Theodore Lee Reller (% University of Pennsylvania), 1935. Pp. xviii+340.

Includes a comprehensive bibliography.

U Association: American Association of School Administrators (formerly Department of Superintendence), a department of the National Education Association. Directories: "List of Members" appearing in yearbooks of the Department of Superintendence; Part II of *Educational Directory* (United States Office of Education Bulletin No. 1, issued early each year); *Patterson's American Educational Directory* (annually) includes also high-school principals and other administrative officials. News notes: *American School Board Journal*, *Nation's Schools*, *School Executive*. Periodicals: The same three magazines. Reference book: Yearbook of the Department of Superintendence (or American Association of School Administrators). Research agencies: Those named under subheading "Research agencies" in this guide.

Supervision

S Klopp, W. J. "Annotated Bibliography on Supervision," *California Journal of Secondary Education*, XI (March, 1936), 189–90.

C See guides under elementary-, rural-, and secondary-school administration.

Gist, Arthur S. *The Administration of Supervision*. New York: Charles Scribner's Sons, 1934. Pp. xii+402.

Chapter bibliographies

U *Education Index*, "Supervision and Supervisors"; *Review of Educational Research*, Vol. III, No. 4 (October, 1933), Vol. VI, No. 3 (June, 1936), and forthcoming number in 1939, "Psychology of Learning, General Methods of Teaching, and Supervision" cycle; and *Elementary School Journal*, list of selected references on "Supervision" in January numbers. Association: Department of Supervisors and Directors of Instruction of the National Education Association. Periodical: *Educational Method*. Reference book. Yearbook of the Department of Supervisors and Directors of Instruction

Teacher personnel

S *Administrative Practices Affecting Classroom Teachers*, Parts I and II. Research Bulletin of the National Education Association, Vol. X, Nos. 1 and 2. Washington: Research Division of the National Education Association, 1932.

Contains a brief selected bibliography.

C BETTS, GILBERT L., FRAZIER, BENJAMIN W., and GAMBLE, GUY C. *Selected Bibliography on the Education of Teachers.* National Survey of the Education of Teachers, Vol. I. United States Office of Education Bulletin No. 10, 1933. Pp. xii+118.

FRAZIER, BENJAMIN W. *Education of Teachers—Selected Bibliography, June 1, 1932, to October 1, 1935.* United States Office of Education Pamphlet No. 66 (1936). Pp. vi+42.

These references cover personnel problems.

U *Education Index*, "Teachers"; *Elementary School Journal*, list of selected references on "Teaching Staff" in February numbers; *Review of Educational Research*, Vol. I, No. 2 (April, 1931), Vol. IV, No. 4 (October, 1934), and Vol. VII, No. 3 (June, 1937), "Teacher Personnel" cycle.

Teacher training

The *C* notes under the preceding section on "Teacher personnel" will cover this area nicely. The *Education Index*, "Teacher Training," may be used for later references. Association: American Association of Teachers Colleges, a department of the National Education Association. Reference book: Yearbook of this association.

Women executives

Association: Department of Administrative Women in Education of the National Education Association. Reference book: Yearbook of this association.

CLUES TO SOURCES OF DATA AND ADDITIONAL REFERENCES

Abstracts

The *Education Index* lists these by topics, using the subheading of "Abstracts" where they are sufficiently numerous. They may be expected also in *Educational Abstracts, Loyola Educational Digest*, and *School Management*.

Associations and organizations

The *Educational Directory*, Part IV (United States Office of Education Bulletin No 1, issued early each year), gives names and addresses of presidents and secretaries, places and dates of meetings, and official publications of educational organizations

A Directory of Organizations in the Field of Public Administration. Chicago: Public Administration Service (850 East Fifty-eighth Street), 1936. Pp. xii+180.

Includes associations in public-school administration Gives names and addresses of officers, membership requirements, finances, activities, affiliations, and publications of each organization, classified by fields and states.

The notes on many topics in this list include names of associations.

Bibliographies

MONROE, WALTER S., and SHORES, LOUIS. *Bibliographies and Summaries in Education to July 1935.* New York: H. W. Wilson Co., 1936. Pp. xiv+470. The best possible source for period covered. Good annotations, with both author and topic entries in one alphabet. This may be kept fairly well up to date on any topic by using the selected bibliographies of the *Elementary School Journal* and the *School Review.* For months in which given topics are listed, see:

ALEXANDER, CARTER. *How To Locate Educational Information and Data,* p. 92. New York: Teachers College, Columbia University, 1935.

For bringing such a bibliography up to date on an exhaustive scale, look for "Bibliography" as a subheading in the *Education Index* and the *Cumulative Book Index,* beginning about June, 1935.

Biography

See the later subheading "Names, addresses, and information about individuals."

Book reviews

ALEXANDER, CARTER. *How To Locate Educational Information and Data,* chap. xvii. New York: Teachers College, Columbia University, 1935.

Books, series, publishers

A list of publishers, with their addresses, appears in the front of every number of the *Education Index.* As each number includes only publishers whose publications are listed in that particular issue, it is best to consult an annual cumulation for locating small publishers.

For all books published in the English language, consult the *United States Catalog* and *Supplements, Cumulative Book Index,* and *Publishers' Weekly,* accessible in practically any library.

Foreign books may be located through:

MUDGE, ISADORE GILBERT. *Guide to Reference Books.* Chicago: American Library Association, 1936 (sixth edition). Pp. x+504. Supplements are issued every year or so.

Among the best-known books and series in school administration are those published by the following companies, names of editors being given in parentheses: Houghton Mifflin Company (Ellwood P. Cubberley); American Book Company (George D. Strayer); Bureau of Publications, Teachers College, Columbia University (George D. Strayer and N. L. Engelhardt); Rand McNally and Company (A. B. Moehlman); D. Appleton-Century Company (F. C. Ayer and Fred Engelhardt); Macmillan Company (Philip A. Knowlton); Ginn and Company (Ernest N. Stevens); Bruce Publishing Company (W. C. Bruce); University of Chicago Press; Stanford University Press.

General school administration

Association. American Association of School Administrators (formerly Department of Superintendence), a department of the National Education Association. Periodicals: *American School Board Journal, Nation's Schools, School Executive.* Reference books: *Official Reports* and Yearbooks of the department preceding, Proceedings of the National Education Association, and Yearbooks of the National Society for the Study of Education. Research agencies: Research Division of the National Education Association and Research Service of the American Association of School Administrators (formerly Department of Superintendence) of that association.

Government agencies and publications

Names of specialists in the United States Office of Education are listed inside the back cover of any number of *School Life* or in Part I of the annual *Educational Directory* (United States Office of Education Bulletin No. 1 [of any year]).

ALEXANDER, CARTER. *How To Locate Educational Information and Data,* chaps. xii and xiii. New York: Teachers College, Columbia University, 1935.

Covers general government documents and publications of the United States Office of Education.

SCHMECKEBIER, LAURENCE F. *Government Publications and Their Use.* Washington: Brookings Institution, 1936. Pp. xiv+446.

The latest and best authoritative treatment, including a list of depository libraries in which these publications may be found

Indexes

The best index for locating current references on public-school administration is the *Education Index* (1929 to date), on the whole field of public administration, *Public Affairs Information Service* (1915 to date). Many references prior to 1929 and certain materials not catalogued in the foregoing indexes can be located through the following indexes:

1. For books: *United States Catalog* and *Supplements* and *Cumulative Book Index* (1898 to date).
2. For periodical articles: *Poole's Index to Periodical Literature* and *Supplement* (1802–1906); *Readers' Guide to Periodical Literature* (1900 to date); *Readers' Guide to Periodical Literature Supplement* (1907–1915, 1916–1919); *Industrial Arts Index* (1913 to date), *Agricultural Index* (1916 to date), *International Index to Periodicals* (1920 to date); and *Loyola Educational Index* (1928 only).
3. For news items: *New York Times Index* (1913 to date).

4. For detailed suggestions on how to locate references prior to 1929, see: ALEXANDER, CARTER. *How To Locate Educational Information and Data*, chaps. xi and xii. New York: Teachers College, Columbia University, 1935.

The headings most frequently used in classifying references on public-school administration in the indexes listed are given in Table I.

TABLE I

HEADINGS MOST FREQUENTLY USED IN BIBLIOGRAPHICAL INDEXES IN CLASSIFYING EDUCATIONAL PUBLICATIONS

Heading	Cumulative Book Index	Education Index	Readers' Guide	International Index	New York Times Index	Industrial Arts Index	Public Affairs Information Service	Agricultural Index	Poole's Index	Loyola Educational Index
Administration of schools		X								
Boards of education		X								X
Business administration of schools		X								X
Business managers		X								
Education, finance					X		X			
Education and state	X	X	X	X		X				
Executives		X	X	X		X				
Leadership		X	X	X	X	X	X	X		
Principals		X								X
School administration									X	X
School administration and organization	X		X	X			X	X		
School boards	X		X	X						
School buildings		X				X	X		X	
School finance	X	X	X	X		X		X		X
Schoolhouses	X		X	X				X	X	
School management	X		X	X					X	
School organization									X	
School principals	X		X*							
School superintendents	X								X	
School superintendents and principals			X	X						
School supervision	X								X	
School supervision and supervisors			X	X						X
Schools, administration					X					
Schools, buildings and sites					X					
Schools, finance					X					
Superintendents		X								X
Supervision and supervisors		X								

* Not always used.

Names, addresses, and information about individuals

ALEXANDER, CARTER. *How To Locate Educational Information and Data*, chap. xxiv New York: Teachers College, Columbia University, 1935.

News notes

Alexander, Carter. *How To Locate Educational Information and Data*, chap. xxv. New York: Teachers College, Columbia University, 1935.

Periodicals: *American School Board Journal*, *Nation's Schools*, *School Executive*.

Periodicals, educational

The Yearbook of the Educational Press Association gives names, editors, place of publication, and number of issues published a year for such publications.

The useful periodicals for any given topic in this list are noted in connection with the topic.

Reference books

Alexander, Carter. *How To Locate Educational Information and Data*, chap. v. New York: Teachers College, Columbia University, 1935.

Mudge, Isadore Gilbert. *Guide to Reference Books* Chicago: American Library Association, 1936 (sixth edition). Supplements annually or at longer intervals.

The authoritative treatment of all reference books of interest to educators generally.

Research agencies

The *Educational Directory*, Parts I and II (United States Office of Education Bulletin No. 1 [of any year]), previously described, lists research directors in state education departments and city school systems. Most of these, as well as many educational research workers in higher institutions, are named in the annual membership list of the American Educational Research Association printed in the December number of the *Review of Educational Research*.

A Directory of Organizations in the Field of Public Administration, described in this section under the subheading "Associations and organizations," states under each organization the types of activities carried on by it

Research agencies interested in a given topic are sometimes listed under that topic in this guide.

Researches, locating

Full directions and all important sources are given in:

Alexander, Carter. *How To Locate Educational Information and Data*, chap xxiii. New York Teachers College, Columbia University, 1935.

Good, Carter V., Barr, A S., and Scates, Douglas E. *The Methodology of Educational Research* New York· D. Appleton-Century Co , Inc., 1936. Pp. xxii+882.

For current educational researches, the *Education Index* has the best listings, often with "Researches" as a subheading under some suitable administrative heading

A project for an encyclopedia of educational research is headed by Professor W. S. Monroe, of the University of Illinois. If this work is eventually published, in the course of several years it will be the best source for summaries of researches on any school administration topic.

Researches needed

Chapter ii, of the GOOD, BARR, and SCATES reference under the preceding subheading, "Researches, locating," lists a number of magazine articles on needed research in school administration The *Education Index* may be used for later suggestions, by use of the subheading of "Research" for the topic of interest, especially "Administration of Schools."

Statistics, educational

Full directions and some notes on sources are given in:

> ALEXANDER, CARTER. *How To Locate Educational Information and Data*, chap. xix. New York: Teachers College, Columbia University, 1935.

Many additional notes on sources are in:

> ALEXANDER, CARTER. "Statistics Needed in Educational Work: References and Notes on Sources," *Library Consultant*, No. 8, January, 1936. Pp. 24 (mimeographed). Obtainable for 15 cents a copy postpaid from the author, Teachers College, Columbia University, New York City.

The *Education Index* lists current materials with the subheading of "Statistics" under many topics.

Surveys

The most convenient bibliographies of school surveys are those issued by Dean Henry Lester Smith and colleagues of the University of Indiana School of Education, traceable through the *Education Index*. Lists of surveys appear regularly in the *Education Index*, the *Bibliography of Research Studies in Education* series of the United States Office of Education, and the periodical *School Management*, all with some such heading as "Surveys."

SELECTED REFERENCES ON FOREIGN EDUCATION

JAMES F. ABEL
United States Office of Education

Among the more important historical studies that have appeared during the year are a history of secondary education in France, the first volume of a history of the University of Heidelberg, school policies in Greece from 1821 to 1935, a brief account of Keiogijuku University, a sketch of the teaching of mathematics in Scotland, a centenary volume on the University of Bern, and a lively, popular account of education in the Transvaal from 1836 to 1936.

The education surveys include a study of the organization of higher education, an inquiry into education in Southern Rhodesia, a survey of Costa Rican education by a mission from Chile, a report on the reorganization of education in Mysore, an appraisal of America's investment in six Near East colleges, and the report of an interdepartmental committee on native education in the Union of South Africa.

Along the lines of health-teaching and related services are a program for schools of nursing, an unusual report on physical education in France, the annual report of the chief medical officer in England, and a report on health services in Scotland.

The recently established New Zealand Council for Educational Research came into action with a comprehensive bibliography on education in New Zealand.

GENERAL REFERENCES

322. BUREAU INTERNATIONAL D'ÉDUCATION. *Annuaire international de l'éducation et de l'enseignement, 1936* Publications du Bureau International d'Éducation, No. 50. Geneva: Bureau International d'Éducation, 1936. Pp. 470.

The fourth of a series giving the principal education events for the year. This number is for 1934–35 and includes data from fifty-two countries.

323. BUREAU INTERNATIONAL D'ÉDUCATION. *La législation régissant les constructions scolaires*. Publications du Bureau International d'Éducation, No. 47. Geneva: Bureau International d'Éducation, 1936. Pp 200.

A compilation of data on the laws relating to school buildings made up for thirty-seven countries from the replies to a questionnaire.

324. INSTITUT INTERNATIONAL DE COOPÉRATION INTELLECTUELLE. *Bibliographie pédagogique internationale (année 1935)*. Paris: Institut International de Coopération Intellectuelle, 1936. Pp. 172.

The second of a series begun by the International Institute in 1935. The first related to the year 1934. The lists are furnished by national education information centers in twenty-nine countries.

325. INSTITUT INTERNATIONAL DE COOPÉRATION INTELLECTUELLE. *L'Organisation de l'enseignement supérieur: I. Allemagne, Espagne, États-Unis d'Amérique, France, Grand-Bretagne et Irlande, Hongrie, Italie, Suède.* Paris: Institut International de Coopération Intellectuelle, 1936. Pp. 340.

A most welcome study of higher education in the countries named. For each country it deals with such topics as the university and the state, interior organization of the institutions, organization of studies, and buildings and finances.

326. INTERNATIONAL LABOR OFFICE. *Problems of Vocational Guidance.* Studies and Reports, Series J (Education) No. 4. London: P. S. King & Son, Ltd., 1935. Pp. 184.

A bird's-eye view of vocational guidance, which is considered in this study as a connecting link between educational and social work on the one hand and economic activities on the other.

327. KANDEL, I. L. (Editor). *Educational Yearbook of the International Institute of Teachers College, Columbia University, 1936.* New York: Teachers College, Columbia University, 1936. Pp. xviii+634.

This is the thirteenth of a series begun in 1924. The seven preceding issues were devoted to discussions of special topics This volume returns to the original plan of presenting descriptive accounts of national systems of education Nineteen systems, including the United States, are presented.

328. SMITH, HENRY LESTER, and PAINTER, WILLIAM ISAAC. *Bibliography of Literature on Education in Countries Other than the United States of America.* Bulletin of the School of Education, Indiana University, Vol. XIII, No. 2. Bloomington, Indiana: Bureau of Co-operative Research, Indiana University School of Education, 1937. Pp. 342.

A bibliography of material published in the twelve-year period, January 1, 1925, to December 31, 1936, on file in the University of Indiana library Intended for students who desire to locate discussions on any specific phase of education in foreign countries.

329. STEWART, ISABEL M. *The Educational Program of the School of Nursing.* Geneva: International Council of Nurses, 1934. Pp. 96.

The report of a study begun in 1925. It embodies suggestions, recommendations, and methods that the Education Committee of the International Council of Nurses believes to be practical and urgently needed.

330. *The Unofficial Ambassadors, 1937.* New York: Committee on Friendly Relations among Foreign Students (347 Madison Ave.), 1937. Pp. 20.

Gives a statistical summary by countries of foreign students in colleges and universities in the United States during 1936–37 and their distribution by institutions. Published annually. Comparisons may be made with previous years.

331 USILL, HARLEY V. (General Editor). *The Year Book of Education, 1937.* London: Evans Bros., Ltd., 1937. Pp. 912.

The sixth volume of a series begun in 1932. The thirteen parts of this yearbook deal with statistics in the United Kingdom and the dominions; statistical summaries for foreign countries; finance in the United Kingdom; legal notes; education of the adolescent in the dominions and the United States; educational trusts in the United Kingdom, the dominions, and the United States; two problems of education in the United Kingdom; educational policy in the British colonial empire; education in India; education in Islamic countries, Latin America, and the Far East; current problems in Europe; educational significance of contact with the peoples and conditions of other countries; and an outline of legal education.

BY COUNTRIES

AUSTRALIA

332. HILL, MARJORIE. *Training To Reason—An Investigation into the Possibility of Training in Seeing Relations of Evidence.* Australian Council for Educational Research Series, No. 44. Melbourne: Melbourne University Press, 1936. Pp. 72.

The author was attempting to discover whether reasoning can be trained. The experiment was conducted with five groups of children, one of which was the control group. Probably the most important conclusion reached is that "it is useless to depend on one subject to improve another for improvement can be obtained only by specific training."

333. SUBLET, FRANK G. *Education for Industry and Citizenship.* Australian Council for Educational Research Series, No. 45. Melbourne: Melbourne University Press, 1936. Pp. 144.

Believing that it is undesirable for education to be organized on a highly specialized basis, the author tries to set out the basic ideas of the alternative mode of advance. His study is divided into four parts, general education, industrial education, education for the profession of engineering, and probable trends of engineering education.

BELGIUM

334. C. R. B. EDUCATIONAL FOUNDATION, INC. *Record of Belgian and American C. R. B Fellows, Visiting Professors, Lecturers and Scientists Studying and Traveling under the Auspices of the C. R B Educational Foundation, Inc., 1920–1936.* New York: C. R. B. Educational Foundation, Inc., 1937. Pp. 132.

A report that indicates the kind of work being done by some of the stronger organizations interested in promoting better international relations through exchanges in cultural and scientific fields

BRITISH COLONIES

335. FLETCHER, BASIL A. *Education and Colonial Development*. London: Methuen & Co., Ltd., 1936. Pp. viii+152.

Written to consider the present educational situation in a number of colonies and to discover, if possible, the better lines of educational advance.

336. FEDERATED MALAY STATES. *Annual Report of the Education Department for the Year 1935*. Kuala Lumpur: At the Federated Malay States Government Press, 1936. Pp. 124.

An official report that combines considerable historical data with the account of progress in 1935.

337. HONG KONG. *Report of the Education Department for the Year 1935*. Hong Kong: Printed at Victoria Gaol, 1936. Pp. 36.

Summarizes briefly general and educational conditions in Hong Kong and tells of progress made in 1935.

338. KENYA, COLONY AND PROTECTORATE OF. *Education Department Annual Report, 1935*. Nairobi, Kenya Colony: Government Printer, 1936 Pp. 86.

The official annual report of education in Kenya. Includes an excellent diagram of the organization of instruction in the colony.

339. PALESTINE DEPARTMENT OF EDUCATION. *Annual Report 1934–1935*. Jerusalem: Printing and Stationery Office, 1936. Pp. 94.

An official report that includes organization of instruction, nomenclature, programs of study, and a number of graphs and charts indicating the progress of education in Palestine since the World War.

340. SOUTHERN RHODESIA. *Report of the Education Commissioner, 1936*. Salisbury: Rhodesian Printing & Publishing Co., Ltd., 1936. Pp. 52.

In October of 1935, Herbert F. B. Fox was appointed by the governor of Southern Rhodesia to "inquire into and report upon the present system of European education in all its bearings in the Colony" His findings are presented in this publication

341. STRAITS SETTLEMENTS. *Annual Report on Education in the Straits Settlements for the Year 1935*. Singapore: Government Printing Office, 1936 Pp. 134.

A well-arranged report on education in the Straits Settlements, including a historical account.

342. SUDAN GOVERNMENT. *Annual Report of the Education Department* Khartoum: McCorquodale, 1936. Pp. 39.

The official report of a school system that is an unusual combination of public and private education.

343. UGANDA PROTECTORATE. *Annual Report of the Education Department for the Year Ended 31st December, 1935.* Entebbe: Government Printer, 1936. Pp. 90.

The report contains a good map of the protectorate, sketches the history of education there, and outlines in detail the condition of the school system during the year.

CANADA

344. DOMINION OF CANADA, BUREAU OF STATISTICS. *Annual Survey of Education in Canada, 1935.* Ottawa: J. O. Patenaude, I.S.O., 1937. Pp. xlviii+186.

The regular annual survey of education in Canada. Contains the most complete and the best organized information that can be obtained. It includes a directory and bibliography for 1936.

CHINA

345. YOUNG, CHIA FENG. "Higher Education in China," *Peabody Journal of Education*, XIV (January, 1937), 185–95.

An excellent brief article containing a large amount of valuable factual material.

COSTA RICA

346. MISIÓN EDUCACIONAL CHILENA EN COSTA RICA, 1935 *Informes y trabajos:* Vol. I, *Informes, educación pre-escolar, educación primaria y normal.* San José: Juan Arias, impresor, 1935, pp. 324. Vol. II, *Educación secundaria, educación técnica.* San José: Editorial Borrasé Hnos., 1935, pp. 352.

The first and second volumes of a constructive survey of education in Costa Rica made by a Chilean educational mission consisting of Luis Galdames, Arturo Piga, and Oscar Bustos. Deals with the general Costa Rican situation. preschool, primary, normal, secondary, and technical education.

ENGLAND[1]

347 COUNTY COUNCIL OF DURHAM, EDUCATION DEPARTMENT. *Educational Program for the Period 1st April, 1936, to 1st September, 1939, the Appointed Day for the Raising of the School Leaving Age under the Education Bill, 1936: Report of the Director of Education.* Durham: County Council of Durham, July, 1936. Pp 114

Illustrates the way in which local education authorities in England plan for education and work with the Board of Education of England and Wales

348. GREAT BRITAIN BOARD OF EDUCATION. *Educational Administration in England & Wales.* Board of Education Pamphlet No 105 London: His Majesty's Stationery Office, 1936. Pp. 44

A selection of the charts used in connection with the Educational Exhibition held at Oxford in 1935. Useful in connection with any study of education in England.

---

[1] See also Item 594 (Hartog and Rhodes) in the list of selected references appearing in the December, 1936, number of the *School Review*

349. GREAT BRITAIN BOARD OF EDUCATION. *The Health of the School Child—Annual Report of the Chief Medical Officer of the Board of Education for the Year 1935.* London: His Majesty's Stationery Office, 1936. Pp. 160.

Each year the report of the School Medical Service of England is among the best of the publications on child health. The report for 1935 is no exception to that rule. An interesting, readable document.

350. GREAT BRITAIN BOARD OF EDUCATION. *Suggestions for the Planning of Buildings for Public Elementary Schools.* Board of Education, Educational Pamphlets No. 107. London: His Majesty's Stationery Office, 1936. Pp. xvi+130+xvii–xxviii.

The reorganization of education in England according to the Hadow Plan, by which the school-leaving age is raised to fifteen years, calls for many changes in, and additions to, school accommodations. This pamphlet offers to local education authorities guiding principles that the Board of Education feels should be followed in planning the accommodations

351. MURRAY, J. WICKHAM. "Can Technical Education Be 'Liberal'?" *Adult Education*, IX (September, 1936), 28–36.

The author points out "that there is no fundamental difference between technical and any other form of education." He claims that "the technical student, through carefully devised courses of study is able to use his probable and actual life-work to attain what is probably a truer culture than is possible by other means."

352. SADLER, SIR MICHAEL, AND OTHERS. *Essays on Examinations.* London: Macmillan & Co., Ltd., 1935. Pp. xii+168.

Consists of nine essays, six of which were written by members of the English committee set up to work with committees in Scotland, France, Germany, and *the United States to investigate problems relating to examinations. A part of* the International Institute Examinations Inquiry.

353. SIMON, E. D. "A Citizen Challenges the Universities," *Universities Review*, IX (November, 1936), 5–18.

A discussion of the responsibilities of the universities in the formation of public opinion.

FRANCE

354. BARTHÉLEMY, M. GEORGES. *Rapport fait au nom de la Commission des Finances chargée d'examiner le projet de loi portant fixation du Budget Général de l'Exercice 1937 (Education physique—sports et loisirs).* Paris: Imprimerie de la Chambre des Députés, 1936. Pp. 136.

An official document written by a member of the Chamber of Deputies in defense of a request for increased appropriations for physical education, sports, and leisure. He sketches the history of physical education; its present status in France; its status in Germany, Belgium, Italy, and Czechoslovakia; and outlines his hopes for the future in France.

355. VIAL, FRANCISQUE. *Trois siècles d'histoire de l'enseignement secondaire.* Paris: Librarie Delagrave, 1936. Pp. 288.

During the French Revolution the colleges in France were abolished and central schools established in their stead. The central schools lasted only four or five years. The author of this book undertook to write a careful account of these schools but found it difficult to do so without writing a history of secondary education in France.

GERMANY

356. AKADEMISCHES AUSKUNFTSAMT AN DER UNIVERSITÄT BERLIN. *Ratgeber für Ausländer die an Deutschen Hochschulen Studieren Wollen.* Berlin: Verlag des Deutschen Instituts für Ausländer an der Universität Berlin, 1936. Pp. 24.

An attempt to answer in advance the main questions of a foreign student planning to study either for a short or longer period at a German university.

357. BOJE, WALTER A. *Wegweiser durch die Lehrgebiete der Deutschen Hochschulen.* Schriften zur Studienberatung. Bearbeitet im Akademischen Auskunftsamt. Berlin: Verlag des Deutschen Instituts für Ausländer, 1937. Pp. 336.

A guide to study at institutions of university rank in Germany, giving for each subject the institutions at which it is offered, special institutions for research, the duration of study, and the opportunities for examination.

358. LOEPELMANN, MARTIN. *Erziehung und Unterricht an der höheren Schule:* Ein Handbuch für die Praxis herausgegeben von Dr. Martin Loepelmann, Ministerialdirigent im Reichs- und Preussischen Ministerium für Wissenschaft, Erziehung, und Volksbildung. Band I, Voraussetzungen. Frankfurt-am-Main: Verlag Moritz Diesterweg, 1936. Pp 60.

The introductory volume of a practical handbook on education and instruction in the secondary school.

359. REICHSSTELLE FÜR SCHULWESEN BERLIN. *Wegweiser durch das höhere Schulwesen des Deutschen Reiches, Schuljahr 1935.* Berlin: Weidmannsche Buchhandlung, 1936. Pp. 256.

A statistical survey of secondary education in Germany for the school year ending May 15, 1935.

360. RITTER, GERHARD. *Die Heidelberger Universität—Ein Stück deutscher Geschichte:* Erster Band, Das Mittelalter (1386–1508). Heidelberg: Carl Winters Universitatsbuchhandlung, 1936. Pp. xiv+534.

A history of the University of Heidelberg during the Middle Ages.

361. TAYLOR, JOHN W. *Youth Welfare in Germany.* Nashville, Tennessee: Baird-Ward Co., 1936. Pp. 260.

A doctoral study of government action pertaining to the care of German youth. A bibliography is included.

GREECE

362. Haralambides, Theodor. *Die Schulpolitik Griechenlands—Studie zur Kulturgeschichte Neugriechenlands von 1821–1935.* Berlin: Junker & Dunnhaupt, 1935. Pp. 208.

A historical analysis of the education situation in modern Greece and plans for its betterment.

INDIA

363. Burma Education Department. *Annual Report on Public Instruction in Burma for the Year 1935–36.* Rangoon: Superintendent, Government Printing and Stationery, 1936. Pp. 42+lxiv.

Of special interest because Burma will soon have a government separate from India.

364. Department of Public Instruction in Mysore. *Report of the Committee on the Reorganization of Several Grades of Education with Syllabuses.* Bangalore: At the Government Press, 1936. Pp. 260.

The committee was appointed to consider the question of reorganization of middle schools with ruralized courses of study. The report offers a changed organization of instruction, with syllabuses for the different types of schools recommended

IRISH FREE STATE

365. *Report of the Department of Education, 1934–35.* Dublin: The Stationery Office, 1936. Pp. 263.

The official report on education in the Irish Free State Contains general comments and statistics in detail.

ITALY

366. Marraro, Howard R. *The New Education in Italy.* New York: S. F. Vanni, Inc., 1936. Pp. 506.

The most complete and best survey, published in English, of the present system of education in Italy.

367. Ministero dell'Educazione Nazionale. *Supplemento al bollettino ufficiale I: Leggi, regolamenti e altre disposizioni generali,* anno 63, Martedi 12 Maggio, 1936, N. 19. Rome: Istituto Poligrafico dello Stato, 1936. Pp. 610.

This supplement to the official bulletin of the Ministry of National Education of Italy contains Royal Decree of May 7, 1936, fixing the hours and programs of study for the classical, scientific, teacher-training, and technical secondary schools.

JAPAN

368. *The Keiogijuku University—A Brief Account of Its History, Aims and Equipment.* Tokyo: Keiogijuku University, 1936. Pp. 104.

A brief history of the oldest of the modern institutions of higher learning in Japan

LATIN AMERICA

369. *Latin American Studies in American Institutions of Higher Learning, Academic Year 1935–1936.* Washington: Division of Intellectual Cooperation, Pan American Union, 1936. Pp. iv+74.

An up-to-date list of the various courses given on Latin America by the colleges and universities in the United States. The courses total 875 and enrol something more than 13,365 students.

370. "Some Folk Songs and Stories of the Americas," *Bulletin of the Pan American Union*, LXXI (February, 1937), 133–200.

A charming collection of tales and songs, one each from most of the American countries. They should be pleasing to both children and teachers in the schools of the United States.

MEXICO

371 SALAZAR, JUAN B. *Bases of the Socialist Secondary School.* Translated by Francisco Olave. Mexico: Talleres Gráficos de la Nación, 1936. Pp. 64.

This is a plan submitted in June, 1935, to the Institute of Socialist Orientation by the head of the department of secondary education of the National Secretariat of Public Education.

NEAR EAST

372. EXECUTIVE COMMITTEE OF THE FIVE YEAR STABILIZATION FUND OF THE NEAR EAST COLLEGES. *An Appraisal of America's Investment in Six Near East Colleges.* New York: Near East College Association, 1937. Pp. 44.

A survey of what has been accomplished by the American College of Sofia, Athens College, Robert College, the American College for Girls, the American University of Beirut, and the International College, and an estimate of their needs for the next five years

NETHERLANDS

373. *Gedenboek—Nederlandsch Instituut van Accountants, 1895–1935* Amsterdam: Nederlandsch Instituut van Accountants. Pp. 148.

A publication written on the occasion of the fortieth anniversary of the founding of the Netherlands Institute of Accountants.

NETHERLANDS INDIES

374. *Census of 1930 in the Netherlands Indies:* Vol VIII, Summary of the Volumes I–VII. Batavia· Landsdrukkerij, 1936. Pp. 128.

This summary of the census of 1930 in the Netherlands Indies offers excellent fundamental data on which to base a study of education in those islands.

NEW ZEALAND

375. MULES, MARY, and BUTCHERS, A. G. *Bibliography of New Zealand Education.* New Zealand Council for Educational Research Series, No. 2. Wellington: Whitcombe & Tombs, Ltd., 1936. Pp 84.

The bibliography began as a selected list of references for the council's research workers but was eventually carried along until it is complete in most of its sections.

NICARAGUA

376. *Informe del ministro de instruccion publica, Doctor Lorenzo Guerrero, al congreso nacional, 1935.* Managua: Imprenta Nacional, 1936. Pp. 444.

Following a brief introduction, this annual report gives in detail the legislative decrees, official actions taken, the reports of the different departments, and statistical data on education in Nicaragua.

PERU

377. JIMÉNEZ, JUAN J. VALÁSQUEZ. "Conocimientos exigidos para el ingreso a las escuelas de ingenieras y la educación pública en el Perú," *Boletín de minas, industrias y construcciones,* Serie III, Tomo 8, Año, 1936. Pp. 196.

This entire number of the *Boletín* is given over to the conditions of admission to schools of engineering in Peru. Includes a discussion of admission to such schools in France, Germany, and England.

POLAND

378. "Organisation de la Science Polonaise," *Organon—Revue Internationale,* I. Warsaw: Institut Mianowski d'Encouragement aux Travaux Scientifiques, 1936. Pp. 135–289.

Written to give to foreigners the most essential data on the organization of Polish science, the present status of each science, the country's scientific centers, and the part which government and private organizations play in aiding science.

379. TUROSIENSKI, SEVERIN K. *Poland's Institutions of Higher Education.* United States Office of Education Bulletin No. 14, 1936. Pp. 160.

A study of Poland's institutions of higher education made by a man whose mother-tongue is the Polish language. It includes data valuable to collegiate registrars, and students of comparative education will find its scope wide enough for their special needs.

PORTUGAL

380. GUIMARÃIS, OLIVEIRA. *Boletim oficial do ministério da instrução pública,* Año VI, Fasciculos I e II. Lisbon: Imprensa Nacional, 1936. Pp. 310–214.

The official publication of the Ministry of Public Instruction of Portugal. This issue contains the reports of the inspector general of private education, the reports of the district inspectors, and the text of various decrees.

SCOTLAND

381. DEPARTMENT OF HEALTH FOR SCOTLAND. *Committee on Scottish Health Services Report.* Edinburgh: His Majesty's Stationery Office, 1936. Pp. 404.

The findings of a committee appointed in 1933 "to review the existing health services of Scotland in the light of modern conditions and knowledge and to make recommendations on any changes in policy and organization that may be considered necessary for the promotion of efficiency and economy."

382. WILSON, DUNCAN K. *The History of Mathematical Teaching in Scotland to the End of the Eighteenth Century*. Publications of the Scottish Council for Research in Education, Vol. VIII. London: University of London Press, Ltd., 1935. Pp. viii+100.

An interesting sketch enlivened by quotations such as the following:

> To learn a-right to multiplie
> The Table get in memorie,
> Then first set down multiplicand
> And nixt, let multiplier stand.

SWITZERLAND

383. FELLER, RICHARD. *Die Universität Bern, 1834–1934*. Bern and Leipzig: Paul Haupt, 1935. Pp. 648.

A history of the University of Bern written with the co-operation of the Direction of Instruction of the Canton of Bern and the University Senate.

UNION OF SOUTH AFRICA

384. BOT, A. K. *A Century of Education in the Transvaal, 1836–1936* Pretoria: Government Printer, 1936. Pp. 174.

Written for the Empire Exhibition held at Johannesburg in 1936 More of a pictorial and popular history than a research account. A very interesting publication and profusely illustrated.

385. *Report of the Interdepartmental Committee on Native Education 1935–1936*. Pretoria: Government Press, 1936. Pp. 158.

The committee was appointed in 1935 to examine and report on the systems of native education of the provinces and make recommendations on certain matters connected therewith. Among other things it recommends that control of native education be transferred from the provinces to the Union government and placed in the Union Education Department, which should accept the financial responsibility.

UNION OF SOVIET SOCIALIST REPUBLICS

386. AMERICAN-RUSSIAN CHAMBER OF COMMERCE. *Handbook of the Soviet Union*. New York: American-Russian Chamber of Commerce, 1936. Pp. 562+lxiii.

Three chapters of this volume are of special interest to educators: chapter vi, "The Second Five-Year Plan", chapter xv, "Labor Conditions and Social Welfare"; and chapter xvi, "Educational and Cultural Development"

Educational Writings

REVIEWS AND BOOK NOTES

Forward steps in testing.—The history of science teaches us that the golden key which has unlocked the secrets of many domains has been the ability to measure; for to measure means to control. Insofar as education can be made a science, measurement remains of first importance. Despite spritely advances made since the coming of the testing movement, our methods of examining as they affect thousands of students are, of course, still inadequate. Unquestionably, we misjudge, misguide, and miseducate many youths because we do not have sufficient knowledge or control to do better, but, worse, we are dilatory in applying the knowledge that we *do* have. We need to find more trustworthy ways of measuring human ability, and we need, even more, a philosophy to guide us in intelligent appraisal and use of the information which measurements yield. To paraphrase Ben Wood, in testing, minor tactics are important, but major strategy is transcendent. The development of valid measuring devices is basic, but imagination and vision in using them delimit their final effect on educational practice.

Thrice welcome, therefore, is a new book[1] on the construction of examinations which (praise Allah!) does not limit itself to discourses on the merits of true-false versus essay tests. It is a long-awaited contribution to the general subject of the improvement of testing.

The three basic chapters in Part I, written by R. W. Tyler and E. F. Lindquist, on "Identification and Definition of the Objectives To Be Measured," "The Theory of Test Construction," and "The Construction of Tests," together with Max McConn's chapter in Part III on "The Uses and Abuses of Examinations," are in themselves sufficient justification for the publication of the book, and this is said without disparagement to the five excellent chapters in Part II dealing with specific methods of testing in five major subject fields. While some of the materials of these chapters have appeared previously elsewhere, it is eminently fitting that they should be included in this volume. That Tyler's emphasis on identifying and defining objectives in testing is timely and most pertinent is apparent when one considers how typically vague are the aims of most high-school courses and how uniformly examinations tend to deal solely with content covered, despite the general claim that we are seeking "changes in behavior." "When we compare the tests and examinations in common use with the objectives of the courses, it is evident at once that these tests do not show us how well the students are attaining all of these objectives" (p. 7). Every teacher, however, believes or hopes that his course will do more than teach facts.

---

[1] *The Construction and Use of Achievement Examinations:* A Manual for Secondary School Teachers. Prepared under the Auspices of a Committee of the American Council on Education. Edited by Herbert E. Hawkes, E. F. Lindquist, and C. R. Mann. Boston: Houghton Mifflin Co., 1936. Pp. vi+496. $2.40.

> Each subject which is taught is offered with the expectation that students who take this subject will undergo certain desired changes as a result of the course. . . . . These changes which we expect to take place in the student are the objectives of the subject . . . . A satisfactory test or examination in any subject is an instrument which gives evidence of the degree to which students are reaching the objectives of teaching [p. 4].

Such evidence requires a much more explicit defining of objectives and a type of testing less restricted than are common in the schools.

Lindquist's chapter on "The Theory of Test Construction," followed by chapter iii on "The Construction of Tests," should be required reading for every teacher who makes examinations. Here is a sound exposition of the best we know concerning the actual building of examinations. "The constructor of any test of educational achievement is confronted with two major problems The first of these is . . . . *what* to measure. . . . . The second . . . . is . . . . *how* to measure" (p. 17). The first of these demands an adequate reflection of the curriculum, the second, decisions concerning sampling, types of test techniques, arrangement and design of the test, and, most important of all, methods for evaluation of the validity of the test itself. General versus specific achievement tests are discussed in detail, and the advantages and the limitations of each are described In this chapter that old dead horse, the "passing mark," is dragged out into the light of day in a courageous fashion—a performance long overdue. The technical basis for the validity of a single test item and the discriminating power of a single test item are here treated in adequate detail, as are also a number of treacherous results of questions that pass with the uninitiated as satisfactory.

Chapter iii is a manual of specific instructions for actually building a test, step-by-step instructions being given and many tricks of the trade. The busy teacher will use this chapter whether or not he reads the bases given for it in the two preceding chapters.

Part II, "Examinations in Major Subject Fields," devotes a chapter to each of five major fields of subject matter. "Examinations in the Social Studies," by Howard R. Anderson, "Examinations in the Natural Sciences," by Fred P Frutchey and R. W. Tyler; "Examinations in the Foreign Languages," by Algernon Coleman; "Examinations in Mathematics," by John A. Long, Harold T. Lundholm, and Eugene R. Smith; and "Examinations in English," by John A. Lester and E. F. Lindquist. It seems to this reviewer that each of these chapters is excellently done and is rich in suggestions and that the procedures presented are founded on solid bases. Instructors in any of these fields who build or select examinations in accordance with the principles and techniques here suggested may rest assured that their tests are as valid as present knowledge can make them. Since limitations of space make it impossible to outline in detail the manner of treatment of each chapter, the reviewer must be content merely to suggest to any instructor as a most important reference the chapter referring to his particular subject. These chapters give sample types of questions and the basis for selection of each, together with many other practical suggestions.

In the final chapter Max McConn gives a masterly résumé of the past and present uses and abuses of examinations that should serve as a therapeutic to us all, especially to administrators, who, in the last analysis, hold the control of examinations and who, it is always hoped, have some reason for using examinations. McConn's chapter is addressed to the need for a philosophy of testing. "What's the use? What do we accomplish by all this testing and examining anyway? Is it worth all the effort and money it costs? Do we perchance do harm instead of good, or harm as well as good, with our examinations, and especially through the uses we make of their results?" (P. 443.) Of the many uses of examinations, this chapter points out, the chief use has probably always been the "maintenance of standards." Of the crimes that have been committed under this banner, probably the less said the better. Fortunately we have begun to look this ogre in the face. The wide body of diagnostic tests that have become popular in recent years and the long list of previous books on testing, not to mention this volume, are evidence that we are becoming interested in devices that will help a youth to succeed rather than devices which may be used to fail him. The phenomenon of individual differences seems to have really been discovered only upon the advent of the standardized test, and the current philosophy of education in a democracy says, above all, that we must do something about it. Foremost among the things that the school must do is to furnish guidance, in the broadest sense of the term, that will forestall misfits and failures. *For accomplishing this result, no longer or stronger lever is available than adequate measurement, intelligently used.*

The last chapter is a great chapter, and this is a great book. Read it; study it; use it in building your next examination.

JOHN L. STENQUIST

DIRECTOR OF BUREAU OF EDUCATIONAL RESEARCH
BALTIMORE PUBLIC SCHOOLS

The place of body mechanics in the curriculum in physical education.—The term "body mechanics" is somewhat of a newcomer to professional educational literature. It however follows, and is closely related to, a large amount of literature under the heading of "corrective gymnastics" and "corrective procedures." Practically all the writers in the field agree with regard to certain objectives and outcomes. The differences of opinion are, as usual, in methodology. The book under review[1] will undoubtedly raise again this mute question of *how*.

For the skilled teacher the most valuable part of the book will be its references to source material on the various subjects, carefully compiled by title, publisher, date, and page. This gathering-together of published material is very valuable, particularly for the busy teacher who wants to look here for this, and there for that, in connection with certain needs which arise.

The first question which a survey of the contents of this book brings out is: Should this program of body mechanics be set up as a unit by itself or should the work be integrated with the other teaching activities of the school, particularly physical education? For example, in Grades I and II it is questionable whether as much time as suggested should be devoted at the beginning of the school year to the making of records and the classification which the author recommends. For the first week children at this age are interested because of the novelty; but the novelty wears off—and soon—and the children start saying, "Let's do things!" The wise teacher is guided by this impulse. The opinion of the reviewer is that, if much time is to be devoted to this classification, it could be delayed until the winter season and arranged as a rainy-day program, many of the opportunities for vigorous activities in the out-of-doors during the autumn being thus preserved.

The reviewer, however, gravely questions the extent to which children should be made conscious of the various phases of body mechanics. It seems likely that the more they are made conscious of some of these relationships, the more difficult it is to secure correct responses. For this reason it seems that much of the program suggested for use in separate units should be integrated with the general program in physical education.

The presentation of the content of the book assumes skilled leadership. It assumes that teachers are trained to detect and to understand the deviations and distortions of the human body and that they are able to recognize a mechanically efficient body. Yet it must be realized that there are few persons skilled in this way If teachers are so skilled, much of this book on anatomy would be repetition. The contents seem too vague to give to the ordinary teacher any ideas for maintaining the interest span on the part of the child. The questions of body mechanics are not of primary interest to the child; one has to "slip up on his blind eye," as it were, if such material is to be included.

Many people in the country will question the author's statement that the Kellogg strength test is the most completely designed one that is known. The reviewer would question whether there is *any* certain test of this type, and many people would have arguments for and against this test and that test.

In a statement in the Appendix there are suggestions for a posture play called "The Slump Family." It is this type of material that the teacher really needs in order that she may *dramatize* certain of the basic principles of body mechanics. The inclusion of more material of this type would have made it possible to integrate this whole program with the general curricular activities of the school.

---

[1] Ivalclare Sprow Howland, *The Teaching of Body Mechanics in Elementary and Secondary Schools.* New York: A S Barnes & Co., 1936 Pp. xii+204. $2.00

The reviewer is convinced that it is impossible and undesirable, particularly with smaller children, to take the body to pieces for analysis of activities. He believes that the movement should be in the other direction: establishing a feeling of organic wholeness. From this standpoint great emphasis should be placed on a normal living condition, normal procedure, and normal activities, which have been thought out and analyzed *by the teacher*. This analysis, however, is *not* presented to the child. From this standpoint, *The Teaching of Body Mechanics* should be kept in the hands of skilled leaders. We shall have to wait for a simpler and more dramatized publication for the aid of the average lay teacher.

JAY B. NASH

NEW YORK UNIVERSITY

Professional training of teachers of arithmetic.—At a time when many of the courses in professional schools for teachers rest on the basis of assumptions and personal opinions of those who teach the courses, one welcomes any serious effort to determine curriculum offerings.

In the volume under review[1] the author presents the results of investigations which were made to discover the effectiveness of professional courses in arithmetic and to discover the extent to which professional courses in arithmetic now offered by professional schools for teachers are responsible for deficiencies in the product of these schools. The results of these investigations were used, along with standards formulated by other investigators, as criteria for evaluating professional courses in arithmetic. On the basis of these evaluations an attempt was made to formulate suggestions concerning the organization, the administration, and the teaching of these professional courses.

The method used to determine the effectiveness of the professional training in arithmetic consisted in an analysis of the teacher's shortcomings (1) in the command of fundamental principles of arithmetic and in the applying of the principles and (2) in the effective use of principles of teaching. The data used to discover inadequacies in training consisted of (1) the examination papers in arithmetic of approximately 19,000 candidates for the license to teach in the elementary schools of New York City, (2) the results of an examination in arithmetic given to 322 employed elementary-school teachers, and (3) the results of direct observation of the teaching of elementary arithmetic in 28 public schools and of conferences with the teachers whose teaching had been observed.

[1] Arthur E. Robinson, *The Professional Education of Elementary Teachers in the Field of Arithmetic*. Teachers College Contributions to Education, No. 672. New York: Teachers College, Columbia University, 1936. Pp. vi+194.

All the teachers who were examined and whose teaching was observed had had from two to four years of professional training in arithmetic. Two limitations of the data for this part of the study have been pointed out by the author: (1) The examinations were confined to one city. (2) The observations were confined to the work of 278 teachers in 28 elementary schools. The unreal character of some of the examination questions seems to the reviewer to constitute a third limitation.

Data dealing (1) with the character and the extent of the professional preparation and professional experience of the teachers of professional courses in arithmetic and (2) with the materials of instruction and classroom activities of professional courses were used to determine the extent to which training schools might be responsible for the inadequacies of their product. The questionnaire method was used for collecting these data; consequently, this phase of the study is subject to the limitations inherent in the questionnaire method.

A few of the findings having the most significant implications for teacher training in arithmetic are as follows: (1) Elementary-school teachers have at best only a mechanical knowledge of arithmetic; they are lacking in a knowledge of the fundamental principles of arithmetic which underlie the mechanical processes. (2) The teachers are weakest in those abilities which call for an application of principles to processes or for an application of processes to problematic situations, especially those of the textbook variety. (3) The teachers lack ability to apply in their classroom work many of the most fundamental principles of teaching. (4) The deficiencies listed are not confined to teachers of any one level of experience; primary teachers are no weaker than those of other levels of teaching. (5) The majority of the teachers of professional courses in arithmetic appear to have drifted into their present positions, only half of them had had actual teaching experience in the elementary grades for which they were preparing prospective teachers

This investigation is of considerable value in showing the trends of current practice. Only by indirection, however, does it point the way to more ideal practice. Fundamentally, before we can have an objective evaluation of courses of study of any type, we shall need objective studies (1) to discover the specific needs of training, (2) to determine the relative merits of various learning activities and instructional materials, and (3) to determine the relative adequacy of various types of examinations for measuring the effects of training.

W. S. Guiler

Miami University

A treatment of health problems for teachers and administrators.—A useful book on school health[1] has been prepared primarily for students of education and teachers in service It is written in nontechnical language and presents a comprehensive statement of the more important problems in school hygiene. The first quarter of the book is devoted to growth—its nature and influencing factors. There follows an extensive discussion of the physical examination of school children which considers not the method of making the examination but rather the nature and significance of the various conditions and defects to be detected.

---

[1] Laurence B. Chenoweth and Theodore K Selkirk, *School Health Problems* With a chapter on "School Health Administration" by Richard Arthur Bolt. New York: F S. Crofts & Co, 1937 Pp xii+388. $3.00

After a short statement of the essential facts in the prevention of the more important communicable diseases, the authors discuss at some length the school problems of seeing and hearing. Other chapters deal with handicapped children, tuberculosis, mental hygiene, physical education, and accidents. A final chapter on school health administration, prepared by Dr. Richard A. Bolt, presents a well-organized outline of school health activities. The discussion in the body of the book also provides material basic to the establishment of administrative policies.

The book does not set out to be an encyclopedic publication in the field of school health, covering all phases of the problem from schoolhouse construction to educational methods. It selects certain fundamental problems and presents to the educator or school health worker the essential facts concerned, usually giving attention to both phases of problems concerning which differences of opinion exist. It contains a fairly comprehensive glossary and a carefully prepared index, both of which increase its usefulness.

This book may be cordially recommended as a sound, useful, and convenient reference.

C. E. TURNER

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

A textbook in public finance for the upper grades.—The depression focused the attention of educational leaders on the need for a more effective social-studies curriculum in the common schools. Faced with shortsighted budget cuts, taxpayers' strikes, wholesale investment losses, and share-the-wealth panaceas of the $200-a-month variety, educators have given serious consideration to the necessity of teaching straight thinking in economics. A contribution in this field[1] brings some of the history and principles of public finance within the comprehension of upper-grade and high-school pupils.

The problems of taxation are introduced informally through a conversation between a boy and his father about the gasoline tax. Six chapters enumerate the ways in which we are served and benefited by the national, state, and local governments and the methods by which these governments collect the money to pay for the services. Six chapters are devoted to the history of taxation, starting with ancient Egypt, Mesopotamia, and China, and emphasizing the development of taxation in the United States. One chapter is devoted to a treatment of the theories of tax-shifting; another to the ways in which public expenditures may be reduced without curtailing governmental services. An appendix furnishes pertinent tax statistics and stimulating questions and problems for each chapter. There is an adequate index.

---

[1] M. Slade Kendrick and Charles H. Seaver, *Taxes:* Benefit and Burden. New York: Newson & Co., 1937. Pp. 190. $0.80

The book is interestingly written. Amusing facts in the history of taxation are not neglected. The vocabulary is carefully controlled, and the ideas presented are within the comprehension limits of junior high school pupils. The treatment of the subject is designed to develop wholesome attitudes toward taxation.

Teachers of junior and senior high school civics will find the book a valuable supplementary textbook. Teachers in the intermediate grades who develop social-studies units treating ancient, medieval, and modern nations will find interesting material dealing with the public-revenue systems of those periods.

WALTER W. COOK

EASTERN ILLINOIS STATE TEACHERS COLLEGE
CHARLESTON, ILLINOIS

Spelling in the light of educational psychology.—Ayer, Oberholtzer, and Woody have organized their spellers[1] according to seven general principles which appear fundamentally sound in the light of present-day educational psychology: emphasis on the mastery of a basal group of words most commonly used in everyday writing; opportunity for enrichment through the learning of additional important words; adaptability to the needs of individual pupils; motivation of pupil interest; self-activity of pupils; unification of spelling with pronunciation, understanding, and use of words; and adjustment to local school environment.

The method of word selection is not entirely clear. The authors state that their basal list is made up of 2,308 words which comprise over 95 per cent of the total number of running words used in correspondence and which are, for the most part, common to adult and child writing. Detailed descriptions of the authors' studies and the source lists have, of course, no place in the brief introduction to the textbooks; but, in view of the failure of agreement among most published basic vocabularies, the omission of specific reference is to be regretted. The technique of grading is not disclosed.

Flexibility and adaptability are strong features of the series. In effect, each pupil studies the number of words which he himself is capable of assimilating. Furthermore, suggestions provide for reducing the teaching time where such reduction is desirable because of seasonal employment, shortened school term, and so on.

The attractive form of the spellers, the pictures for the younger pupils, and the games and exercises included should increase the interest value and make for permanence of learning. Dictionary activities are introduced for Grade IV and above. The common objection that confused impressions result from the syllabication and diacritical markings found in most dictionaries is met by the inclusion in each volume of a "Little Dictionary" which first presents each word as it occurs normally in print and follows this form with the usual dictionary form in parentheses.

---

[1] Fred C Ayer, E. E. Oberholtzer, and Clifford Woody, *Modern-Life Speller*· Book I, pp. xvi+128, $0.48; Book II, pp. xviii+106, $0.48; Book III, pp xviii+106, $0.48 Yonkers-on-Hudson, New York: World Book Co., 1936

Published investigations to date have indicated little difference in the effectiveness of the study-test method of presentation and the test-study method. For incidental reasons the advantage appears to lie with the test-study method in the middle and upper grades. The *Modern-Life Speller*, however, prefers the study-test method at all levels.

In view of the inconclusive evidence now available with reference to actual study procedures, the authors have been faced with a certain responsibility of choice. The injunction to second- and third-grade pupils to whisper the word softly and say the letters two or three times is open to question because articulation carried too far may lead to the habit of inner articulation and the subsequent interference with study of a mature type.

Young pupils are instructed to look at the letters one at a time. Obviously spelling requires exact attention to the form and the position of each letter, but photographic records of eye-movements have shown that such attention does not, at all levels, necessitate visual fixations on each letter. Detailed analysis may be desirable in the beginning, but growth is characterized by a broadening of the visual grasp. Warning should be issued against letter-by-letter study to such a point that a narrow recognition span becomes a permanent perceptual habit.

While saying a word by syllables may possess value on occasion, the inculcation of a rigid procedure is to be looked on with suspicion.

The authors are to be commended for their cautious reserve in stating that there is no one method which is best for teaching spelling on all occasions. The statement might be amended to read that there is no known method which is best for teaching spelling on all occasions.

Pending further advances in the psychology of spelling, the *Modern-Life Speller* should prove popular with informed school officials.

LUTHER C. GILBERT

UNIVERSITY OF CALIFORNIA

CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY AND PRACTICE

BRUNNER, EDMUND DES, and LORGE, IRVING. *Rural Trends in Depression Years:* A Survey of Village-centered Agricultural Communities, 1930–1936. New York: Columbia University Press, 1937. Pp. xvi+388. $3.25.

ENGELHARDT, FRED, and OVERN, ALFRED VICTOR. *Secondary Education:* Principles and Practices. New York: D. Appleton-Century Co., Inc., 1937. Pp. xvi+624. $2.75.

FRASER, MOWAT G. *The College of the Future:* An Appraisal of Fundamental Plans and Trends in American Higher Education. New York: Columbia University Press, 1937. Pp. xx+530. $3.75.

PLANT, JAMES S., M.D. *Personality and the Cultural Pattern.* New York: Commonwealth Fund, 1937. Pp. x+432. $2.50.

BOOKS PRIMARILY FOR ELEMENTARY-SCHOOL TEACHERS AND PUPILS

Another Here and Now Story Book. Edited by Lucy Sprague Mitchell. New York: E. P. Dutton & Co., Inc., 1937. Pp. xxvi+370. $2.00.

An Appraisal and Abstract of Available Literature on: *The Occupation of the Insurance Salesman* by Sigmund Adler, pp. 8; *The Occupation of the Barber* by A. E. Schoettler, pp. 8; *Linotype Operation as an Occupation* by De Witt S. Morgan, pp. 8; *The Occupation of the Motion Picture Actor* by Shirley Wells, pp. 10; *Pharmacy as an Occupation* by Irvin S. Noall, pp. 8; *Photography as an Occupation* by Maynard L. Sandell, pp. 12; *Teaching as an Occupation* by Marguerite G. Healy and Marie McNamara, pp. 12; *Waiters and Waitresses* by John F. Murphy, pp. 6. New York: National Occupational Conference, 1937.

MCGUIRE, EDNA. *A Brave Young Land.* New York: Macmillan Co., 1937. Pp. vi+392. $1.08.

Reading for Background: No. 5, *Science Books for the Elementary School.* Edited by Ruth Budd. New York: H. W. Wilson Co., 1937. Pp. 24. $0.35.

RUGG, HAROLD. Man and His Changing Society: Vol. IV of the Junior High School Course, *America's March Toward Democracy:* History of American Life: Political and Social. Boston: Ginn & Co., 1937 (revised). Pp. xii+516. $1.96.

RYAN, MILDRED GRAVES. *Your Clothes and Personality.* New York: D. Appleton-Century Co., Inc., 1937. Pp. xiv+390. $1.72.

SMITH, DAVID EUGENE. *The Wonderful Wonders of One—Two—Three.* New York: McFarlane, Warde, McFarlane, 1937. Pp. 48. $1.00.

WHITE, ALICE M. G., and TOBITT, JANET E. *Dramatized Ballads.* New York: E. P. Dutton & Co., Inc., 1937. Pp. 192. $2.00.

PUBLICATIONS OF THE UNITED STATES OFFICE OF EDUCATION AND OTHER MATERIAL IN PAMPHLET FORM

CHAMBERLAIN, LEO M., and MEECE, LEONARD E. *Women and Men in the Teaching Profession.* Bulletin of the Bureau of School Service, Vol. IX, No. 3. Lexington, Kentucky: University of Kentucky, 1937. Pp. 62.

Deliberative Committee Reports of 1936. Washington: Educational Policies Commission of the National Education Association and the American Association of School Administrators, 1937. Pp. 10.

Educational Sociology. Review of Educational Research, Vol. VII, No. 1. Washington: American Educational Research Association of the National Education Association, 1937. Pp. 112.

The Fifth Yearbook of School Law, 1937. Edited by M. M. Chambers. Washington: American Council on Education (744 Jackson Place), 1937. Pp. 144. $1.00.

FOSDICK, RAYMOND B. *The Rockefeller Foundation:* A Review for 1936. New York: Rockefeller Foundation, 1937. Pp. 58.

The Junior High School in Child Growth. Ann Arbor, Michigan: Board of Education, 1937. Pp. 12.

KIMBALL, BRADFORD F. *Changes in the Occupational Pattern of New York State.* Educational Research Studies, 1937, No. 2. Albany, New York: University of the State of New York, 1937. Pp. 190.

PETERS, CHARLES C. *Abstracts of Studies in Education at the Pennsylvania State College,* Part VII (1937). Pennsylvania State College Studies in Education, No. 19. State College, Pennsylvania: Pennsylvania State College. Pp. 62. $0.25.

Pupil Guidance in the Junior High Schools. Ann Arbor, Michigan: Board of Education, 1937. Pp. 52.

Recent issues of the Office of Education:

- Bulletin No. 2, 1935—*Statistics of Public High Schools, 1933–34:* Being Chapter V of the *Biennial Survey of Education in the United States: 1932–34* (advance pages) by David T. Blose and Carl A. Jessen. Pp. vi+76.
- "State Aid to Private and Sectarian Schools." Compiled by the Research Division of the National Education Association. Washington: National Education Association, 1937. Pp. 36 (mimeographed). $0.15.

Suggestions for the Development and Use of Curriculum Materials in the Elementary School. Pennsylvania Curriculum Studies, Bulletin 110. Harrisburg, Pennsylvania: State Department of Public Education, 1936. Pp. 92.

MISCELLANEOUS PUBLICATIONS

MARTIN, OLGA J. *Hollywood's Movie Commandments:* A Handbook for Motion Picture Writ

302. $2.75.

THE ELEMENTARY SCHOOL JOURNAL

THE UNIVERSITY OF CHICAGO
CHICAGO, ILLINOIS

THE

EMENTARY SCHOOL JOURNAL

Edited by
NEWTON EDWARDS

with the co-operation of
THE DEPARTMENT OF EDUCATION OF
THE UNIVERSITY OF CHICAGO

VOLUME XXXVII

SEPTEMBER, 1936—JUNE, 1937

THE UNIVERSITY OF CHICAGO
CHICAGO, ILLINOIS

Published

September, October, November, December, 1936

January, February, March, April, May, June, 1937

INDEX TO VOLUME XXXVII

AUTHORS

Abel, James F.—Selected References on Foreign Education, 779–89

Alexander, Carter, and Burke, Arvid J.—Guide to the Literature on Public-School Administration, 764–78

Beggs, V. L.—Reporting Pupil Progress without Report Cards, 107–14

Bickford, Fern E., Davis, Deland A., Otto, Henry J., and Smith, Maude W.—Age-Grade and Grade-Progress Data for Children in One-Room Rural Schools, 336–43

Boney, C. DeWitt.—The Disposition of a Group of Slow First-Grade Readers, 203–8

Breed, Frederick S.—Generalization in Spelling, 733–41

Breed, Frederick S.—Selected References on Elementary-School Instruction (Spelling), 140–42

Breed, Frederick S., and Ralston, Alice L.—The Direct and Indirect Methods of Teaching the Addition Combinations, 283–94

Brueckner, Leo J.—Selected References on Elementary-School Instruction: I. Curriculum, Methods of Teaching and Study, and Supervision, 58–65

Burke, Arvid J., and Alexander, Carter—Guide to the Literature on Public-School Administration, 764–78

Buswell, G. T.—Selected References on Elementary-School Instruction (Arithmetic), 209–12

Campbell, Ina, and Douglass, Harl R.—Factors Related to Failure in a Minneapolis Junior High School, 186–89

Colburn, Evangeline.—Selected References on Elementary-School Instruction (Library Training), 222–23

Coon, Beulah I.—Selected References on Elementary-School Instruction (Home Economics), 221–22

Cramer, John Francis.—Australian Tests and American Pupils, 17–24

Davis, Deland A., Otto, Henry J., Smith, Maude W., and Bickford, Fern E.—Age-Grade and Grade-Progress Data for Children in One-Room Rural Schools, 336–43

Davis, Dorothy M.—Practical Speech Correction in the Public Schools, 447–50

Dawson, Mildred A.—Children's Preferences for Conversational Topics, 429–37

Dolch, E. W.—The First Step in Remedial Reading, 268–72

Douglass, Harl R., and Campbell, Ina.—Factors Related to Failure in a Minneapolis Junior High School, 186–89

Douglass, Harl R., and Wind, Kate.—Factors Related to Withdrawal from Junior High Schools in Minneapolis, 375–80

Feuerstein, Emma, and Martin, Mary R.—The Activities of an Elementary-School Council, 369–74

Freeman, Frank N.—Selected References on Elementary-School Instruction (Handwriting), 142–43

Gates, Arthur I.—The Necessary Mental Age for Beginning Reading, 497–508

Goodenough, Florence L.—Selected References on Preschool and Parental Education, 541–48

Gray, William S.—Selected References on Elementary-School Instruction (Reading), 133–37

Gray, William S.—Selected References on Teacher Education, 302–7

Gray, William S.—"The Teaching of Reading: A Second Report," 688–94

Grossnickle, Foster E.—An Experiment with Two Methods of Estimation of the Quotient, 668–77

Harper, C. A.—Paradoxes in Social-Studies Instruction, 601–7

Hattwick, LaBerta Weiss; Totten, Helen, and Van Alstyne, Dorothy.—A New

Scale for Rating School Behavior and Attitudes, 115–21

Hayward, W. George, and Ordway, Nancy M.—Vocabularies of Recently Published Preprimers, 608–17

Henry, Nelson B.—Conflicting Views on Federal Aid, 509–16

Henry, Nelson B., and Reavis, William C.—Selected References on Public-School Administration, 381–87, 458–66

Hildreth, Gertrude, and Martens, Elise H.—Selected References from the Literature on Exceptional Children, 695–710

Hobson, James R.—Reducing First-Grade Failures, 30–40

Hockett, John A., and Neeley, Deta P.—A Comparison of the Vocabularies of Thirty-three Primers, 190–202

Hockett, John A., and Neeley, N. Glen.—The Vocabularies of Twenty-eight First Readers, 344–52

Jordan, Floyd.—Functions of Divisions of Elementary Education in State Departments of Education, 365–68

Judd, Charles H.—Can Divergent Views on Educational Theory and Practice Be Reconciled? 576–91

Judd, Charles H.—How Shall the Enriched Curriculum Be Made Systematic? 653–67

Kelty, Mary G.—Recent Trends in the Social Studies for the Middle Grades, 257–67

Kyte, George C.—Causes of First-Grade Non-promotion in the Light of Measured Intelligence, 415–28

Lord, A. R.—A Canadian Looks at Teacher Training, 353–64

Lyman, R. L.—Selected References on Elementary-School Instruction (English), 137–40

McCloy, C. H.—Selected References on Elementary-School Instruction (Health and Physical Education), 223–25

McLaughlin, Katherine L.—Selected References on Kindergarten-Primary Education, 618–26

McSpadden, W. W.—Selected References on Elementary-School Instruction (Science), 212–14

Martens, Elise H., and Hildreth, Gertrude.—Selected References from the Literature on Exceptional Children, 695–710

Martin, Mary R., and Feuerstein, Emma.—The Activities of an Elementary-School Council, 369–74

Miller, William A.—The Picture Choices of Primary-Grade Children, 273–82

Morphett, Mabel Vogel, and Washburne, Carleton.—Manuscript Writing—Some Recent Investigations, 517–29

Neeley, Deta P., and Hockett, John A.—A Comparison of the Vocabularies of Thirty-three Primers, 190–202

Neeley, N. Glen, and Hockett, John A.—The Vocabularies of Twenty-eight First Readers, 344–52

Niégosch, Helena Petrovitch.—Some Problems of Modern Elementary Education, 176–85

Nietz, John A.—Horace Mann's Ideas on General Methods in Education, 742–51

Ordway, Nancy M., and Hayward, W. George.—Vocabularies of Recently Published Preprimers, 608–17

Otto, Henry J.—Administration Responsibilities for Progress in Elementary Education, 25–29

Otto, Henry J., Smith, Maude W., Bickford, Fern E., and Davis, Deland A.—Age-Grade and Grade-Progress Data for Children in One-Room Rural Schools, 336–43

Parker, Edith P.—Selected References on Elementary-School Instruction (Geography), 146–47

Petersen, Inez B.—The Reading-Readiness Program of the Ironwood Public Schools, 438–46

Pierce, Anne E.—Selected References on Elementary-School Instruction (Music), 214–16

Postel, Harold H.—The Effect of Adapting Reading Materials to Seriously Retarded Pupils, 536–40

Ralston, Alice L., and Breed, Frederick S.—The Direct and Indirect Methods of Teaching the Addition Combinations, 283–94

Reavis, William C.—Cultivation of Leisure Activities, 678–87

Reavis, William C., and Henry, Nelson B.—Selected References on Public-School Administration, 381–87, 458–66

Scates, Douglas E.—The School Statistician in Publicity Work, 97–106

Segel, David.—A Critique of the Elementary-School Graduation Examination, 530–35

Smith, Homer J.—Selected References on Elementary-School Instruction (Industrial Arts), 218–20

Smith, Maude W, Bickford, Fern E., Davis, Deland A., and Otto, Henry J. —Age-Grade and Grade-Progress Data for Children in One-Room Rural Schools, 336–43

Tate, Harry L.—An Evaluation of the Project Method, 122–32

Tate, Harry L —The Influence of Phonics on Silent Reading in Grade I, 752–63

Totten, Helen; Van Alstyne, Dorothy, and Hattwick, LaBerta Weiss.—A New Scale for Rating School Behavior and Attitudes, 115–21

Tryon, R. M.—Selected References on Elementary-School Instruction (The Social Sciences), 143–45

Van Alstyne, Dorothy; Hattwick, LaBerta Weiss, and Totten, Helen —A New Scale for Rating School Behavior and Attitudes, 115–21

Washburne, Carleton, and Morphett, Mabel Vogel.—Manuscript Writing—Some Recent Investigations, 517–29

Wetherington, Julia.—Grade Placement of the Content of Arithmetic, 41–46

Whipple, Gertrude —Procedures Used in Selecting Schoolbooks III, 47–57

Whitaker, Ruth L , and Williams, Claude L.—Diagnosis of Arithmetic Difficulties, 592–600

Whitford, W. G —Selected References on Elementary-School Instruction (Art), 216–18

Williams, Claude L., and Whitaker, Ruth L.—*Diagnosis of Arithmetic Difficulties*, 592–600

Wilson, Frank T.—Correlations of Information with Other Abilities and Traits in Grade I, 295–301

Wilson, Frank T.—Correlations of Vocabulary Knowledge with Other Abilities and Traits in Grade I, 451–57

Wind, Kate, and Douglass, Harl R.—Factors Related to Withdrawal from Junior High Schools in Minneapolis, 375–80

ARTICLES

Addition Combinations, The Direct and Indirect Methods of Teaching the, Frederick S. Breed and Alice L Ralston, 283–94

Administration, Guide to the Literature on Public-School, Arvid J. Burke and Carter Alexander, 764–78

Administration Responsibilities for Progress in Elementary Education, Henry J. Otto, 25–29

Administration, Selected References on Public-School, William C Reavis and Nelson B Henry, 381–87, 458–66

Arithmetic Difficulties, Diagnosis of, Claude L Williams and Ruth L Whitaker, 592–600

Arithmetic, Grade Placement of the Content of, Julia Wetherington, 41–46

Arithmetic, Selected References on Elementary-School Instruction in, G. T. Buswell, 209–12

Art, Selected References on Elementary-School Instruction in, W G Whitford, 216–18

Australian Tests and American Pupils, John Francis Cramer, 17–24

Behavior and Attitudes, A New Scale for Rating School, Dorothy Van Alstyne, LaBerta Weiss Hattwick, and Helen Totten, 115–21

Conversational Topics, Children's Preferences for, Mildred A Dawson, 429–37

Council, The Activities of an Elementary-School, Emma Feuerstein and Mary R. Martin, 369–74

Curriculum, How Shall the Enriched, Be Made Systematic? Charles H. Judd, 653–67

Curriculum, Methods of Teaching and Study, and Supervision, Selected References on, Leo J Brueckner, 58–65

English, Selected References on Elementary-School Instruction in, R L Lyman, 137–40

Examination, A Critique of the Elementary-School Graduation, David Segel, 530–35

Exceptional Children, Selected References from the Literature on, Gertrude Hildreth and Elise H Martens, 695–710

Failure in a Minneapolis Junior High School, Factors Related to, Harl R. Douglass and Ina Campbell, 186–89
Failures, Reducing First-Grade, James R. Hobson, 30–40
Federal Aid, Conflicting Views on, Nelson B. Henry, 509–16
Foreign Education, Selected References on, James F. Abel, 779–89

Geography, Selected References on Elementary-School Instruction in, Edith P. Parker, 146–47

Handwriting, Selected References on Elementary-School Instruction in, Frank N. Freeman, 142–43
Health and Physical Education, Selected References on Elementary-School Instruction in, C. H. McCloy, 223–25
Home Economics, Selected References on Elementary-School Instruction in, Beulah I. Coon, 221–22

Industrial Arts, Selected References on Elementary-School Instruction in, Homer J Smith, 218–20
Information, Correlations of, with Other Abilities and Traits in Grade I, Frank T. Wilson, 295–301

Kindergarten-Primary Education, Selected References on, Katherine L. McLaughlin, 618–26

Leisure Activities, Cultivation of, William C. Reavis, 678–87
Library Training, Selected References on, Evangeline Colburn, 222–23

Mann's Ideas on General Methods in Education, Horace, John A Nietz, 742–51
Manuscript Writing—Some Recent Investigations, Carleton Washburne and Mabel Vogel Morphett, 517–29
Modern Elementary Education, Some Problems of, Helena Petrovitch Niégosch, 176–85
Music, Selected References on Elementary-School Instruction in, Anne E. Pierce, 214–16

Non-promotion, Causes of First-Grade, in the Light of Measured Intelligence, George C. Kyte, 415–28

Picture Choices of Primary-Grade Children, The, William A. Miller, 273–82
Preschool and Parental Education, Selected References on, Florence L. Goodenough, 541–48
Project Method, An Evaluation of the, Harry L. Tate, 122–32
Publicity Work, The School Statistician in, Douglas E. Scates, 97–106

Quotient, An Experiment with Two Methods of Estimation of the, Foster E. Grossnickle, 668–77

Readers, The Disposition of a Group of Slow First-Grade, C. DeWitt Boney, 203–8
Reading, The First Step in Remedial, E. W. Dolch, 268–72
Reading in Grade I, The Influence of Phonics on Silent, Harry L. Tate, 752–63
Reading Materials, The Effect of Adapting, to Seriously Retarded Pupils, Harold H. Postel, 536–40
Reading, The Necessary Mental Age for Beginning, Arthur I. Gates, 497–508
Reading-Readiness Program of the Ironwood Public Schools, The, Inez B. Petersen, 438–46
Reading, Selected References on Elementary-School Instruction in, William S. Gray, 133–37
"Reading, The Teaching of: A Second Report," William S. Gray, 688–94
Report Cards, Reporting Pupil Progress without, V. L. Beggs, 107–14
Rural Schools, Age-Grade and Grade-Progress Data for Children in One-Room, Maude W Smith, Fern E. Bickford, Deland A. Davis, and Henry J Otto, 336–43

Schoolbooks, Procedures Used in Selecting. III, Gertrude Whipple, 47–57
Science, Selected References on Elementary-School Instruction in, W. W. McSpadden, 212–14
Selected References, 58–65, 133–47, 209–25, 302–7, 381–87, 458–66, 541–48, 618–26, 695–710, 779–89
Social Sciences, Selected References on Elementary-School Instruction in the, R. M. Tryon, 143–45
Social-Studies Instruction, Paradoxes in, C. A. Harper, 601–7
Social Studies for the Middle Grades, Recent Trends in the, Mary G. Kelty, 257–67

Speech Correction in the Public Schools, Practical, Dorothy M. Davis, 447–50

Spelling, Generalization in, Frederick S. Breed, 733–41

Spelling, Selected References on Elementary-School Instruction in, Frederick S. Breed, 140–42

State Departments of Education, Functions of Divisions of Elementary Education in, Floyd Jordan, 365–68

Teacher Education, Selected References on, William S. Gray, 302–7

Teacher Training, A Canadian Looks at, A. R. Lord, 353–64

Theory and Practice, Can Divergent Views on Educational, Be Reconciled? Charles H. Judd, 576–91

Vocabularies of Recently Published Preprimers, W. George Hayward and Nancy M. Ordway, 608–17

Vocabularies of Thirty-three Primers, A Comparison of the, John A. Hockett and Deta P. Neeley, 190–202

Vocabularies of Twenty-eight First Readers, The, John A. Hockett and N. Glen Neeley, 344–52

Vocabulary Knowledge, Correlations of, with Other Abilities and Traits in Grade I, Frank T. Wilson, 451–57

Withdrawal from Junior High Schools in Minneapolis, Factors Related to, Harl R. Douglass and Kate Wind, 375–80

EDUCATIONAL NEWS AND EDITORIAL COMMENT

1–16, 81–96, 161–75, 241–56, 321–35, 401–14, 481–96, 561–75, 641–52, 721–32

REVIEWS AND BOOK NOTES

Acklom, George Moreby (editor), The New Champlin Cyclopedia for Young Folks: Science and Invention, Vols. I and II (G. T. Buswell), 475–76

Adams, Fay; Rogers, Lester B.; and Brown, Walker, Story of Nations (Erling M. Hunt), 716–17

Ayer, Fred C., Oberholtzer, E. E., and Woody, Clifford, Modern-Life Speller, Books I, II, and III (Luther C. Gilbert), 797–98

Baker, Harry J., and Traphagen, Virginia, The Diagnosis and Treatment of Behavior-Problem Children (Harold H. Anderson), 308–9

Beckwith, Alice L., Turner, C. E., and Morgan, Nell Josephine, The Joy *Family (Ada R. Polkinghorne), 714*

Betts, Emmett Albert, The Prevention and Correction of Reading Difficulties (J. M. McCallister), 471–72

Blanton, Margaret Gray, and Blanton, Smiley, For Stutterers (Lee Edward Travis), 396

Blanton, Smiley, and Blanton, Margaret Gray, For Stutterers (Lee Edward Travis), 396

Bogoslovsky, B. B., The Ideal School (Frederick S. Breed), 629–30

Brainard, Dudley S., and Zeleny, Leslie D., Problems of Our Times. Vol I, Fundamental National Issues; Vol II, Economic and Social Planning; and Vol. III, International Issues (R. M. Tryon), 152–54

Breslich, Ernst R., McCallister, J. M., and Tyler, Ralph W., co-operating *with Charles Hubbard Judd, Education* as Cultivation of the Higher Mental Processes (E. H. Cameron), 467–68

Brown, Thomas Kite, Jr., and Lewis, William Dodge (editors), The Winston Simplified Dictionary for Schools (Evangeline Colburn), 634

Brown, Walker; Rogers, Lester B., and Adams, Fay, Story of Nations (Erling M. Hunt), 716–17

Bruner, Herbert B., and Smith, C. Mabel, Social Studies: Intermediate Grades, Book I (Ruth R. Watson), 714–16

Buckingham, B. R. (compiler and editor), The Bookshelf: The Attack and Other Stories; Too Many Bears and Other Stories (Walter Barnes), 631–32

Buckingham, B. R., and Dolch, E. W., A Combined Word List (C. T. Gray), 556–57

Burton, William H., and Others, Children's Civic Information, 1924–1935 (R. M. Tryon), 310–12

Buswell, Guy Thomas, How People Look at Pictures (Walter F. Dearborn), 66–67

California State Curriculum Commission, Teachers' Guide to Child Development in the Intermediate Grades (Paul R. Pierce), 394–96
Campbell, Nellie M., The Elementary School Teacher's Treatment of Classroom Behavior Problems (Howard Y. McClusky), 391–92
Chenoweth, Laurence B., and Selkirk, Theodore K., School Health Problems, with a chapter on "School Health Administration" by Richard Arthur Bolt (C. E. Turner), 795–96
Chism, Leslie L., The Economic Ability of the States To Finance Public Schools (E. C. Bolmeier), 470–71
Committee of the Parker School District, Greenville, South Carolina, collaborating with James S. Tippett, Schools for a Growing Democracy (C. L. Cushman), 628–29
Cooke, Dennis H., Minimum Essentials of Statistics (W. M. Shanner), 396–98
Cotteral, Bonnie and Donnie, The Teaching of Stunts and Tumbling (Nelson S. Walke), 636–37
Coyle, Lillian S., and Evans, Walter P., Our American Heritage (W. H. Hathaway), 235–36

De Young, Chris A., Budgeting in Public Schools (Fred Engelhardt), 226–27
Dolch, E. W., and Buckingham, B. R., A Combined Word List (C. T. Gray), 556–57
Dougherty, James Henry; Gorman, Frank Hermon; and Phillips, Claude Anderson, Elementary School Organization and Management (Henry J. Otto), 227–29

Edwards, Anna Camp, and Mayhew, Katherine Camp, The Dewey School (Howard Y. McClusky), 711–12
Evans, Walter P., and Coyle, Lillian S., Our American Heritage (W. H. Hathaway), 235–36

Field, Walter Taylor, Finding the New World (D. S. Brainard), 71–72
Fitz-Simons, Marian J., Some Parent-Child Relationships (Mandel Sherman), 151–52
Fox, Lillian Mohr, and Hopkins, L. Thomas, Creative School Music (Anne E. Pierce), 313–15

Garber, Lee O., Education as a Function of the State (M. M. Chambers), 148–49
Glenn, Mabelle, and Lowry, Margaret, Music Appreciation for Every Child (Anne E. Pierce), 70–71
Gorman, Frank Hermon; Phillips, Claude Anderson; and Dougherty, James Henry, Elementary School Organization and Management (Henry J. Otto), 227–29
Gray, William S., Whitford, William G., and Lick, Edna B., Art Stories, Books II and III (Ann V. Horton), 154–55

Hamlin, John, Tales of an Old Lumber Camp (Ada R. Polkinghorne), 557–58
Harrison, M. Lucile, Reading Readiness (E. W. Dolch), 234–35
Hawkes, Herbert E., Lindquist, E. F., and Mann, C. R. (editors), The Construction and Use of Achievement Examinations (John L. Stenquist), 790–92
Hill, Clyde Milton (editor), Educational Progress and School Administration (William C. Reavis), 627–28
Holmes, Frances B., and Jersild, Arthur T., Children's Fears (Esther McGinnis), 309–10
Hopkins, L. Thomas, and Fox, Lillian Mohr, Creative School Music (Anne E. Pierce), 313–15
Howe, Harrison E., and Patch, Edith M., The Work of Scientists (Florence G. Billig), 152
Howland, Ivalclare Sprow, The Teaching of Body Mechanics in Elementary and Secondary Schools (Jay B. Nash), 792–94

Jersild, Arthur T., and Holmes, Frances B., Children's Fears (Esther McGinnis), 309–10
Jersild, Arthur T., and Markey, Frances V., Conflicts between Preschool Children (Willard C. Olson), 393–94
Jones, Vernon, Character and Citizenship Training in the Public School (Hugh Hartshorne), 389–90
Judd, Charles Hubbard, with the cooperation of Ernst R. Breslich, J. M. McCallister, and Ralph W. Tyler, Education as Cultivation of the Higher

Mental Processes (E. H. Cameron), 467–68

Kelty, Mary G., Learning and Teaching History in the Middle Grades (Burr W. Phillips), 553–54
Kendrick, M. Slade, and Seaver, Charles H., Taxes (Walter W. Cook), 796–97
Knudsen, Charles W., and McAfee, Lucius O., An Introduction to Teaching (Herbert T. Olander), 468–70
Krueger, Louise, and Rugg, Harold, Man and His Changing Society: Vol. I, The First Book of the Earth; Vol. II, Nature Peoples; Vol. III, Communities of Men; and Vol. IV, Peoples and Countries (Edgar B. Wesley), 315–16

Langford, Howard David, Education and the Social Conflict (Harold H. Punke), 230–32
Leining, Edna Bridge, Millions of Years in a Winter (Bertha M. Parker), 74–75
Lewis, William Dodge, and Brown, Thomas Kite, Jr. (editors), The Winston Simplified Dictionary for Schools (Evangeline Colburn), 634
Lick, Edna B, Gray, William S., and Whitford, William G., Art Stories, Books II and III (Ann V. Horton), 154–55
Linder, Roscoe George, An Evaluation of the Courses in Education of a State Teachers College by Teachers in Service (Emmett A. Betts), 630–31
Lindquist, E. F., Hawkes, Herbert E., and Mann, C R. (editors), The Construction and Use of Achievement Examinations (John L. Stenquist), 790–92
Lowry, Margaret, and Glenn, Mabelle, Music Appreciation for Every Child (Anne E Pierce), 70–71

McAfee, Lucius O., and Knudsen, Charles W., An Introduction to Teaching (Herbert T. Olander), 468–70
McCallister, J. M., Remedial and Corrective Instruction in Reading (G. A. Yoakam), 472–73
McCallister, J. M., Tyler, Ralph W., and Breslich, Ernst R, co-operating with Charles Hubbard Judd, Education as Cultivation of the Higher Mental Processes (E. H. Cameron), 467–68
Mac Veagh, Lincoln (editor), The New Champlin Cyclopedia for Young Folks: Places and Events (G. T. Buswell), 475–76
Mann, C. R., Hawkes, Herbert E., and Lindquist, E. F. (editors), The Construction and Use of Achievement Examinations (John L. Stenquist), 790–92
Markey, Frances V., and Jersild, Arthur T., Conflicts between Preschool Children (Willard C. Olson), 393–94
Mayhew, Katherine Camp, and Edwards, Anna Camp, The Dewey School (Howard Y. McClusky), 711–12
Melvin, A. Gordon, The Activity Program (Willard W. Beatty), 551–53
Moore, Nelle E., Near the Top of the World (Ada R. Polkinghorne,) 557–58
Morgan, Nell Josephine, Turner, C. E., and Beckwith, Alice L, The Joy Family (Ada R. Polkinghorne), 714
Mort, Paul R. (director), Federal Support for Public Education (Fred Engelhardt), 549–51

Norton, John K , and Norton, Margaret Alltucker, Foundations of Curriculum Building (Hollis L Caswell), 388–89
Norton, Margaret Alltucker, and Norton, John K., Foundations of Curriculum Building (Hollis L Caswell), 388–89

Oberholtzer, E. E., Ayer, Fred C., and Woody, Clifford, Modern-Life Speller, Books I, II, and III (Luther C. Gilbert), 797–98

Patch, Edith M., and Howe, Harrison E , The Work of Scientists (Florence G Billig), 152
Perkins, Clella Lester, How To Teach Music to Children (Anne E. Pierce), 554–55
Perkins, Clella Lester, and Others, The Silver Book of Songs (Anne E. Pierce), 71
Phillips, Claude Anderson; Dougherty, James Henry; and Gorman, Frank Hermon, Elementary School Organization and Management (Henry J Otto), 227–29
Preston, Everett C , Principles and Statutory Provisions Relating to Recreational, Medical, and Social Welfare Services of the Public Schools (Lee O. Garber), 229–30
Punke, Harold H , The Courts and Public-School Property (M M Chambers), 149

Raup, Bruce, Education and Organized Interests in America (Harold H. Punke), 149–50

Robinson, Arthur E., The Professional Education of Elementary Teachers in the Field of Arithmetic (W. S. Guiler), 794–95

Rodgers, Elizabeth G., An Experimental Investigation of the Teaching of Team Games (Ivalclare Sprow Howland), 635–36

Rogers, Lester B., Adams, Fay, and Brown, Walker, Story of Nations (Erling M. Hunt), 716–17

Rugg, Harold, and Krueger, Louise, Man and His Changing Society: Vol. I, The First Book of the Earth; Vol II, Nature Peoples; Vol. III, Communities of Men; and Vol. IV, Peoples and Countries (Edgar B. Wesley), 315–16

Salisbury, Ethel Imogene, and Stedman, Lulu M., Our Ancestors in the Ancient World (R. E. Swindler), 72–74

Seaver, Charles H., and Kendrick, M. Slade, Taxes (Walter W. Cook), 796–97

Selkirk, Theodore K., and Chenoweth, Laurence B., *School Health Problems*, with a chapter on "School Health Administration" by Richard Arthur Bolt (C. E. Turner), 795–96

Sharman, Jackson R., The Teaching of Physical Education (D. K. Brace), 555–56

Simpson, Margarete, Parent Preferences of Young Children (Mandel Sherman), 69–70

Skinner, Charles E. (editor), Educational Psychology (C. E. Ragsdale), 712–14

Smith, C. Mabel, and Bruner, Herbert B., Social Studies: Intermediate Grades, Book I (Ruth R. Watson), 714–16

Sorenson, Herbert, *Statistics for Students* of Psychology and Education (Douglas E. Scates), 312–13

Stedman, Lulu M., and Salisbury, Ethel Imogene, Our Ancestors in the Ancient World (R. E. Swindler), 72–74

Storm, Grace E., Guidance in Reading Series (Ethel M. Woolhiser), 473–75

Strebel, Ralph F., The Nature of the Supervision of Student-Teaching in Universities Using Co-operating Public High Schools (William S. Gray), 232–34

Tippett, James S., in collaboration with the Committee of the Parker School *District, Greenville, South Carolina*, Schools for a Growing Democracy (C. L. Cushman), 628–29

Traphagen, Virginia, and Baker, Harry J., The Diagnosis and Treatment of Behavior-Problem Children (Harold H. Anderson), 308–9

Tryon, Rolla M., The Social Sciences as School Subjects Report of the Commission on the Social Studies of the American Historical Association, Part XI (C. C. Barnes), 67–69

Turner, C. E., Beckwith, Alice L., and Morgan, Nell Josephine, The Joy Family (Ada R. Polkinghorne), 714

Tyler, Ralph W., Breslich, Ernst R., and McCallister, J. M., co-operating with Charles Hubbard Judd, Education as *Cultivation of the Higher Mental* Processes (E. H. Cameron), 467–68

Warriner, John E., co-operating with Edward Harlan Webster, Good English through Practice, Books I, II, and III (Roy Ivan Johnson), 316–17

Webster, Edward Harlan, with the co-operation of John E. Warriner, Good English through Practice, Books I, II, and III (Roy Ivan Johnson), 316–17

Webster's Elementary Dictionary (Evangeline Colburn), 633–34

Whitford, William G., Liek, Edna B., and Gray, William S., Art Stories, Books II and III (Ann V. Horton), 154–55

Woody, Clifford; Ayer, Fred C.; and Oberholtzer, E. E., Modern-Life Speller, Books I, II, and III (Luther C. Gilbert), 797–98

Zeleny, Leslie D., and Brainard, Dudley S., Problems of Our Times: Vol. I, Fundamental National Issues; Vol. II, Economic and Social Planning; and Vol. III, International Issues (R. M. Tryon), 152–54

CURRENT PUBLICATIONS RECEIVED

75–80, 155–60, 236–40, 317–20, 398–400, 476–80, 558–60, 637–40, 717–20, 798–800